

522 1336

The American Economic Review

VOLUME XX, NO. 3

SEPTEMBER, 1930

H. CLARK
& GARVER

BOARD OF EDITORS
H. E. D. GRAS
H. G. FORD

L. V. SHAFERMAN
S. H. ELCHERTS

MANAGING EDITOR
DAVID H. DEWEY

New York Public Utility Regulation	JOHN BAUER	351
Proposed National Banking Legislation	FREDERICK A. BRANFORD	400
Static and Dynamic Economics	WIMON KUNNETS	436
Employment and Technical Progress in Commercial Printing	ELIZABETH C. BAKER	443
Tariff Act of 1930	ABRAHAM BERGELUND	467
Communication:		
Interest Rate and Diminishing Utility	OLIV INGRAHAM	480
Reviews and Titles of New Books		489
(For complete list of books, see inside pages)		
Comments, Reports, and Legislation		550
Notes		561
Twenty-seventh List of Doctoral Dissertations		574

Publication Office: 450 Alhambra Street, Menasha, Wis.

Executive Office: American Economic Association, Northwestern University, Evanston, Ill.

Editorial Office: 222 Charles River Road, Cambridge, Mass.

Entered at the post office at Menasha, Wisconsin, as second class matter. Acceptance for mailing at special rate of postage provided for by the Act of February 26, 1949, authorized in paragraph A, section 1103, P. L. and U. S. authorized September 12, 1929.

Copyright, 1930, by American Economic Association

Price, in paper, \$1.95

General Works, Theory and Its History

Book Reviews

WESTON, <i>Textbook of Economics</i> , by J. Ise.....	422
DEMARIA, <i>Studi sull' "Attività" dell' Imprenditore Moderno</i> , by R. F. F.....	422
ELY, ADAMS, LOEWY and YOUNG, <i>Outlines of Economics</i> , by A. S. Tostlebe.....	422
FAIRCHILD, FURNISS and BUCK, <i>Elementary Economics</i> , by A. S. Tostlebe.....	422
KNIGHT and SMITH, <i>Economics</i> , by E. E. Agger.....	422
PRICE, <i>Volkswirtschaftliches Wörterbuch: Deutsch-Englisch</i> , by H. T. Collings.....	422
Titles of New Books	422

Economic History and Geography

Book Reviews

HEER, <i>Income and Wages in the South</i> , by H. B. Davis.....	427
NARAIN, <i>Indian Economic Life: Past and Present; ANSLEY, Economic Development of India</i> , by C. Warburton.....	427
CONDLIFFE, <i>Problems of the Pacific, 1929</i> , by V. S. Clark.....	427
COUCH, <i>Treasures of the Greeks and Romans</i> , by M. L. W. Laistner.....	427
DEMARIA, <i>La Situazione Economica in Italia</i> , by R. F. F.....	427
GATSKELL, <i>Chartism: An Introductory Essay</i> , by A. P. Usher.....	427
HICKS, <i>High Finance in the Sixties: Early History of Erie Railway</i> , by B. Daggett.....	427
SAHA, <i>Economics of Rural Bengal</i> , by C. Warburton.....	427
SMITH, <i>Economic Control: Australian Experiments in "Rationalisation" and "Safeguarding"</i> , by H. Heaton.....	427
VIGNOLA, <i>La Mine en Valcure du Canada à l'Epoque Française</i> , by M. P. E. Regaud, by H. A. I.....	427
<i>Thèse de M. P. E. Regaud</i> , by H. A. I.....	427
<i>International Financial Position of U.S.</i> , by L. Pasvolsky.....	427
<i>Picture of World Economic Conditions at Beginning of 1929</i> , by L. Pasvolsky.....	427
Titles of New Books	427

Agriculture, Mining, Forestry, and Fisheries

Titles of New Books	427
----------------------------------	-----

Manufacturing Industries

Book Reviews

ARTMAN, <i>Industrial Structure of New England</i> , by E. W. Goodhue.....	427
Titles of New Books	427

Transportation and Communication

Titles of New Books	427
----------------------------------	-----

Trade, Commerce, and Commercial Crises

Book Reviews

WEYERHANN, <i>Die Konjunktur und Ihre Beziehungen zur Wirtschaftsstruktur</i> , by M. M. Bober.....	427
Titles of New Books	427
Documents, Reports, and Legislation	427

Accounting, Business Methods, Investments and the Exchanges

Book Reviews

BURTT, <i>Psychology and Industrial Efficiency</i> , by C. L. Stone.....	427
BANGS, <i>Industrial Accounting for Executives</i> , by D. Himmelblau.....	427
CRICK, <i>Economics of Installment Trading and Hire-Purchase</i> , by L. S. Lyon.....	427
FISHER, <i>The Stock Market Crash—and After</i> , by G. S. Tippetts.....	427

LANSBURGH, <i>Standards in Industry</i> , by V. D. Wickizer.....	510
WHITE, <i>Coöperative Retail Buying Associations</i> , by F. E. Clark.....	513
Titles of New Books	507

Capital and Capitalistic Organization

Book Reviews

SEAGER and GULICK, <i>Trust and Corporation Problems</i> , by R. M. Weidenhammer and F. Krebs.....	514
BARNES, <i>Public Utility Control in Massachusetts</i> , by W. E. Mosher.....	518
TOULMIN, <i>Millions in Mergers</i> , by D. R. D.....	521
Titles of New Books.....	518

Labor and Labor Organizations

Book Reviews

FRANKFURTER and GREENE, <i>The Labor Injunction</i> , by E. E. Witte.....	522
BIBBY, <i>Unemployment</i> , by A. H. Hansen.....	523
LA DAME, <i>The Filene Store: Study of Employes' Relations to Management in a Retail Store</i> , by J. B. Ewing.....	525
RYNE, <i>Some Southern Cotton Mill Workers and Their Villages</i> , by B. Mitchell.....	527
SELEKMAN and SELEKMAN, <i>British Industry Today</i> , by W. B. Catlin.....	528
<i>Five-Day Week in Manufacturing Industries</i> , by E. Berman.....	529
Titles of New Books	525
Documents, Reports, and Legislation.....	560

Money, Prices, Credit, and Banking

Book Reviews

PEIKOTTO, <i>Cost of Living Studies: How Workers Spend a Living Wage</i> , by C. E. Warne.....	530
ROBINSON and STEARNS, <i>Ten Thousand Small Loans</i> , by C. O. Fisher.....	533
Titles of New Books	532

Public Finance, Taxation, and Tariff

Book Reviews

<i>State Income Taxes: Analysis of Income Taxes in State Fiscal Systems</i> , by J. W. Martin.....	534
COOMBS, <i>Taxation of Farm Property</i> , by J. W. Martin.....	536
SIMPSON, <i>Tax Situation in Illinois</i> , by J. W. Martin.....	536
STUDENSKY, <i>Public Borrowing</i> , by M. S. Kendrick.....	537
WHITE, <i>Finances of Tennessee</i> , by J. W. Martin.....	538
<i>Assessors' Manual</i> , by J. W. M.....	538
<i>Festgabe für Georg Von Schanz</i> , by W. E. Roloff.....	539
<i>Proceedings of Interstate Classified Tax Conference</i> , by J. W. M.....	539
<i>Report of Tax Revision Commission of Utah, 1929</i> , by J. W. Martin.....	539
Titles of New Books	536
Documents, Reports, and Legislation	560

Population and Migration

Book Reviews

MONBERT, <i>Bevölkerungslehre</i> , by A. B. Wolfe.....	540
DUNCAN, <i>Race and Population Problems</i> , by A. B. Wolfe.....	544
WILCOX, <i>International Migrations: Statistics</i> , by A. B. Wolfe.....	546
Titles of New Books.....	544

Social Problems and Reforms

Book Reviews

HOLLINGWORTH, <i>Vocational Psychology and Character Analysis</i> , by C. L. Stone.....	54
MAROI, <i>Un Ventennio di Attività Edilizia a Roma, 1909-1929</i> , by F. R. Piti- gliani.....	54
PORTUS, <i>The American Background: Sketched for Australians</i> , by H. Heaton	54
Titles of New Books	54

Insurance and Pensions

Book Reviews

DUBLIN and LOTKA, <i>The Money Value of a Man</i> , by F. H. Hankins.....	55
Titles of New Books	55

Socialism and Co-operative Enterprises

Book Reviews

BROOKINGS, <i>Economic Democracy, America's Answer to Socialism and Com- munism</i> , by J. E. LeRossignol.....	55
Titles of New Books	55

Statistics and Its Methods

Book Reviews

KING, <i>The National Income and Its Purchasing Power</i> , by G. C. Means.....	55
ANDERSON, <i>Zur Problematik der Empirisch-Statistischen Konjunkturforschung</i> , by H. Jerome.....	55
SOUDEK, <i>Die Sozialen Auswirkungen der Konjunkturschwankungen</i> , by M. M. Bober.....	55
Titles of New Books	55

Officers of the American Economic Association

President	MATTHEW B. HAMMOND, Ohio State University
Vice-Presidents	{ B. H. MEYER, Washington, D.C. GEORGE O. MAY, New York City
Secretary	FREDERICK S. DEIBLER, Northwestern University
Treasurer	JOHN E. WALKER, Washington, D.C.
Counsel	{ WILLIAM H. KIEKHOFFER, University of Wisconsin EDMUND E. DAY, New York City ERNEST L. BOGART, University of Illinois RICHARD T. ELY, Northwestern University JOSEPH H. WILLITS, University of Pennsylvania STUART DAGGETT, University of California

Executive Committee

Ex-Officio

The President, Vice-Presidents, Secretary-Treasurer, Manag-
ing Editor, and three ex-Presidents who have last held
office (Thomas S. Adams, Fred M. Taylor, Edwin F.
Gay)

THE AMERICAN ECONOMIC REVIEW is published four times a year, in March,
June, September, and December, at 450 Ahnalt St., Menasha, Wisconsin.

Correspondence in regard to contributions to the REVIEW should be sent to the Manag-
ing Editor, Professor Davis R. Dewey, 222 Charles River Road, Cambridge,
Massachusetts, or to members of the Board of Editors.

Books for review should be sent to the Managing Editor.

Publication offices of the American Economic Review, 450 Ahnalt St., Menasha, Wis-
consin, and Evanston, Illinois. Office of the Secretary of the American Economic
Association, Northwestern University, Evanston, Illinois. Membership dues are
five dollars a year; life membership, two hundred dollars.

The American Economic Review

Vol. XX

SEPTEMBER, 1930

No. 3

NEW YORK SURVEY OF PUBLIC UTILITY REGULATION

Because of changes in conditions since the Public Service Commission law was enacted in 1907, the New York Legislature in 1929 created a commission to study causes of dissatisfaction with regulation. The difficulty centered in valuation; and the problem is the establishment of a fixed rate base for the variable "fair value." Division of opinion developed as to the constitutionality of a statute providing for a fixed rate base. An analysis is presented showing why such a statute would probably be sustained by the Supreme Court of the United States.

New York was one of the first two states to create a public service commission and to establish the system of public utility regulation which has become generally adopted throughout the country. It is now the first to institute thorough stock-taking to determine how the system has worked, what defects have developed in a period of over twenty-five years, and what changes should be made in the interest of sound public policy.

The Public Service Commissions law was enacted in 1907. It provided for two commissions,—the first district consisting of the city of New York, and the second including the state outside of the city of New York. It established a separate commission for each district, each with jurisdiction over the utilities within its own territory, including, particularly, railroads, street railways, telephones, gas and electric properties. The purpose was to place upon each commission the positive responsibility to protect the public against arbitrary action, but at the same time to assure just treatment of the companies. Over twenty-five years have now elapsed. In the meanwhile, there have been important developments affecting the utilities,—profound technological improvements, consolidations and shifts of control, tremendous rise in price level and capital costs. But, apart from minor changes in the law and several reorganizations of the commissions,¹ there has been no material modification in the general system of regulation. This applies to all the major objects, including service, accounting, security issues, and, particularly, the fixing of reasonable rates.

¹ Since 1920 there has been the "Public Service Commission," with jurisdiction over all regulated utilities in the state, except transportation in the city of New York, for which there has been the separate "Transit Commission." Our discussion refers more particularly to the Public Service Commission, because it has had principal responsibility for regulation.

Early Expectations Frustrated

The 1907 legislation was novel and radical in its day. It sought public control in industries which are extremely important to the general welfare, and at the same time are granted special public privileges which are monopolistic in character. Its object was to supply a substitute for the public protection received from competition in ordinary business. There was much public fervor back of the statute. The new bodies proceeded promptly to carry out their duties. The personnel measured up to high standards. Uniform systems of accounts for the utilities were immediately adopted; procedures were created for the control of security issues; standards of service were established; and, particularly, the rates charged for service were subjected to examination. Throughout there was zeal of action, which, perhaps, in some instances took an anti-company appearance. The stamp of public interest was placed upon the utilities, and the goal of public interest was placed vividly before the commissions.

While the expectations were lofty, and the initial efforts energetic, there was immediate opposition by the companies; and politics was soon brought into play. Then came the war, with its economic upheavals and the extraordinary strains placed upon the utilities and the commissions. There followed the period of post-war adjustments, with its decline in public standards and lessened zeal for regulation. During these years, the utilities—particularly power and light companies—furnished exceptional opportunities for exploitation and speculation. The possibilities for private profit through reorganizations, consolidations and holding company formations were left almost without check from the public standpoint. Public control suffered tremendously, partly for lack of public interest, partly because of court decisions, and partly because of increasing inadequacies of the system of regulation to cope with the new conditions.

While regulation has been at low ebb, the companies have succeeded to a large extent in freeing themselves from the restraints of regulation created in 1907; but during recent years there has been considerable revival of public interest. The zero hour of public disregard has passed. Public officials, newspapers and students have again become critical, and have found that, notwithstanding the commissions, conditions have been created which in most essentials are like those of the uncontrolled nineties, when street railways were overwhelmed with overcapitalization, financial manipulation, speculation, and public corruption. The commissions have done virtually nothing to prevent the developing abuses, and made little effort to extend to the public the protection that had been expected under the 1907 statute.

Investigating Commission Appointed, 1929

The failure of regulation was increasingly discussed after, approximately, 1925; and the discussion attained public significance during 1929. In the early part of January the New York *World* launched a vigorous editorial campaign announcing the breakdown of regulation, and demanding a legislative investigation to determine both the causes of the breakdown and the changes needed to make regulation effective from the public standpoint. This campaign struck fertile ground, and produced prompt results. A special legislative commission was created by the 1929 legislature, and was authorized to make a thorough survey of regulation along the lines demanded by the *World*. This Revision Commission consisted of six legislative members—three from the Assembly and three from the Senate—and three appointed by Governor Franklin D. Roosevelt.² It engaged experts to bring together all the material facts and to analyze them from the public standpoint. It called witnesses not only from the commissions, but also from consumers, municipal officials, economists, engineers and utility officials. It was thoroughgoing and impartial. It brought together all criticisms, defenses, and suggestions from whatever sources attainable. It faced the facts, and did not blink at any of the conditions.

In the final report submitted to the legislature on March 1, 1930, there was remarkable agreement as to conditions that exist and as to what should be done, if feasible, in the public interest. There was disagreement, however, as to what can be done under the fundamental law of the land as decided by the Supreme Court of the United States. The six legislative members felt themselves limited as to what can be done legally, while the Governor's three appointees took the more radical position that whatever is desirable from the public standpoint, is attainable under the law of the land,—that the Supreme Court has not debarred any changes in the system of regulation which are really necessary for effective control.

Inadequate Standards

While there are several more or less distinct issues, the basic difference of position involves the system of rate control. The bulk of the criticism of existing regulation in New York has centered upon rates. The increasing discontent has been due to the growing feeling that rates have been excessive and that reductions have not been brought

² Senate members—John Knight, Chairman, William J. Hickey, Warren T. Thayer; Assembly members—Joseph A. McGinnies, Horace M. Stone, Russell G. Dunmore; Governor's appointees—Frank P. Walsh, James C. Bonbright, David C. Adie; counsel to commission—William J. Donovan.

about with the technological developments in the industries, the increase in volume of business, the improvement in load factor and the consequent reductions in unit-costs of service.

The fundamental difficulty in public rate control has been the lack of adequate standards. Other unsatisfactory conditions are either contributory or are the results of an unworkable rate-making system. The testimony and other evidence collected by the Revision Commission established conclusively that the vital defect is the lack of a definite yardstick of rates. This fact was brought out particularly by a comprehensive report prepared for the Revision Commission by the writer. It was agreed to by most of the experts who had made critical studies of regulation. It was admitted by William A. Prendergast, the then Chairman of the Public Service Commission. It was set out forcefully by Colonel William A. Donovan, counsel of the Revision Commission. It was clearly presented by the majority report of the Revision Commission, and was particularly emphasized by the minority report signed by the appointees of the Governor.

The inadequacy of present rate-making standards is due in part to judicial decisions, but perhaps mostly to the indefiniteness of the statute. The New York law, like virtually all regulatory statutes of other states, merely imposes upon the Public Service Commission the duty to fix reasonable rates, requires in very general terms that, in fixing rates, it shall have regard to providing a fair return on the fair value of the properties used in the public service, and, in addition, prohibits discriminatory and unjust charges. Beyond such vague terms, the law has not provided specifically just how and upon what basis rates shall be fixed, by what precise standards the reasonableness shall be determined, and what machinery and methods shall be employed. It has not made suitable provisions for continuous and exact administration. While it has recognized a special public interest, it has failed to define precisely the scope of that interest, and has left indeterminate the relative rights of the companies and consumers.

This lack of legislative specificness has been responsible, at least in part, for the vague court decisions dealing with public utility rates. Rate-making as such is, of course, a legislative function; but a commission can do only what the legislature directs. It cannot supply what a legislature has omitted, or can do so only under favorable circumstances. Indefinite or inadequate legislation has inevitably produced conflict of interest, and has thus invited judicial invasion of the legislative field.

In the pre-commission era, the legislatures fixed directly by statute, definite rates, without regard to any standards or positive yardsticks. This was the method of the granger railroad rates, and the later street

railway and gas rates. It was under conditions of such direct legislative rate-making that the general judicial rule of "fair value" and "fair return" was established. While the legislative prerogative of rate-making had been recognized under the law of the land in the industries affected with special public interest, it has been subject to the constitutional restraint that private property cannot be taken for public purposes without just compensation. Under this constitutional limitation, the Supreme Court of the United States after a long struggle over the problem of rates fixed by legislation, announced the general rule in the famous case of *Smyth v. Ames*, in 1898, that rates fixed by law or under legislative sanction, must provide for a reasonable return on the "fair value" of the properties used in the public service, and that in fixing the "fair value" consideration must be given to—

... the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the company under particular rates prescribed by statute, and the sum required to pay operating expenses . . . and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property. What the company is entitled to ask is a fair return on the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth. (169 U. S. 466, 544.)

This statement is extremely general, and cannot be taken directly as a standard or definite yardstick of rates. While it imposes restrictions upon rate-making, it does not lay down a precise definition of rights, and does not establish exact principles and methods by which rates are to be fixed so as to protect definitely the rights of both investors and consumers. The basic law as thus announced, has never been made more definite. The uncertainties have affected both the valuation and rate of return. While controversy has centered principally on valuation, the clash of interest has appeared no less in the rate of return. The companies have always struggled before the commission to get the highest possible "value" that could be sustained under the law, also the highest rate of return, while the representatives of the consumers have striven for the lowest possible figures.

Administrative Difficulties

During the earlier years of commission rate-making, under pre-war conditions, there was no great divergence between the level of reproduction cost and actual cost of properties. Dispute appeared principally in the determination of unit prices and in allowance for over-

heads and going value. Since the war, however, a wide spread between reproduction cost and actual cost has been established, particularly as to properties which had been installed before the war at a lower level of costs. With regard to all such properties, a sharp conflict has arisen as to whether "fair value" should start with reproduction cost or actual cost. This issue has come before the Supreme Court in many cases, but no definite decision has been made. Now, as at the time of *Smyth v. Ames*, "fair value" must be based upon a reasonable consideration of all factors, including actual cost as well as reproduction cost. In recent cases, however, the majority opinions have placed special emphasis upon reproduction cost; and this emphasis may imply that preponderant, if not exclusive, weight must be given to reproduction cost, if in any case there is a material difference between the two levels of valuation.

The New York statute was enacted after the pronouncement in *Smyth v. Ames*. Since it did not establish specific standards of rate-making, it has been subject to the general rule laid down by the Supreme Court. Hence, in administering the statute, the New York commissions have encountered these difficulties: (1) They have not had a precise definition of "fair value," either as to the elements to be included or of their relative proportions or weight to be accorded in the determination of the amount in any case. (2) Apart from definition, there has been a lack of definite data or facts out of which the amounts entering into any of the basic elements may be determined; the unit prices have been a matter of judgment not based upon exact facts. (3) The amount of "fair value" has been subject to variation from time to time due to change in price level and in relative weight accorded to the several elements; and each re-valuation has been subject to the uncertainty of relative factors and weight and to absence of exact facts for the determination of basic elements.

Reproduction cost is an important factor. While its relative weight compared with actual cost is uncertain, there is a change in "fair value" if there is a shift in reproduction cost or price level. Hence, as prices move upward or downward, there is (1) the question of principle, to what extent, in general, the change in reproduction cost must be reflected in the new "fair value," and (2) there is the factual problem of determining under the changed conditions the unit prices applicable to reproduction cost. At no stage can exact unit prices be taken from definite records. At each point, determination depends largely upon judgment to be supplied by experts whose opinions differ as between contending parties. Company experts find high unit costs, while public experts develop low unit costs.

Under these circumstances, the New York Public Service Commis-

Commission has carried the burden of an impossible administrative task. It has had under its jurisdiction over 800 individual properties, each of which has been operated under its own particular circumstances. It simply could not keep up to date valuations for rate-making. Every attempt to adjust rates has aroused sharp conflict of interest, and has involved lengthy and cumbersome proceedings, great expense, and unsatisfactory results. The commission, therefore, has deliberately avoided rate cases, and has sought to make rate adjustments through negotiations and agreement with the companies. And in such negotiations, it has been compelled to rely upon the willingness of the companies to reduce rates. It was never able to confront the companies with exact yardsticks by which rates must be reduced. It has had no objective legal standard which could be promptly and exactly applied to any individual case.

Fixed Rate Base and Return

To obviate the extreme administrative difficulties, and to establish a system of rate-making which would be definite and fair to both consumers and investors, the writer recommended to the Revision Commission the establishment of a fixed and non-variable rate base, which would be subject to continuous accounting control.³ But in establishing such a rate base, the Supreme Court decisions with respect to "fair value" could not be ignored. While the objective would be to establish by direct legislation a prudent investment rate base, consideration would have to be given to present reproduction cost. With respect to all future investments, there is probably no legal obstacle to fixing by statute the terms by which new capital may be devoted to the public service. If investors are advised beforehand by statute that they will be definitely limited to fixed returns upon actual investment, they can have no reasonable complaint if they are barred from higher valuations if reproduction cost increases, provided that they are also safeguarded against lower valuations if reproduction cost declines.

There is a constitutional difficulty, however, in establishing a fixed rate base with respect to existing properties which were not subject to exact legal restrictions when the investments were made. Up to the present, in the absence of definite legislation, the properties have not been subjected to exact limitations and have been entitled in general to a "fair return" on the "fair value," with indefiniteness and variability attached to both quantities. The question, therefore, arises, whether such indefinite and variable rights of past investors can now be transformed into precise and fixed rights for the purpose of future

³ The plan proposed followed largely the writer's analysis in *Effective Regulation of Public Utilities* (Macmillan, 1925), taking into account the later court decisions.

rate-making. This question will be taken up in some detail later. In my report to the Revision Commission, I pointed out the existence of the constitutional question, but could see no inevitable barrier to the establishment of a fixed rate base, if the problem is squarely faced and is constructively provided for by legislation, with the manifest object of establishing effective regulation in the interest of investors as well as consumers.

My proposal was to make an initial valuation of all existing properties, and to base the valuations upon the law of the land, which requires consideration to be given to reproduction cost as well as actual cost. This responsibility would be placed upon the Public Service Commission under the mandate of the statute. A definite sum would be fixed for every existing property, including proper allowance for overheads and going value, and making proper deductions for depreciation to cover obsolescence and inadequacy, as well as physical wear and decay.

The initial valuation of each property as thus determined would be entered upon the books of the company, and would thereafter be kept as a fixed and non-variable sum. To this amount would be added only additional investments made for the public service. All the properties would be fully maintained through charges to operating expenses, including adequate provisions for depreciation and renewals. At any given time, the rate base would consist of the book values of the properties, less depreciation reserve, also less all other operating reserves accrued with the approval of the Public Service Commission.

With regard to rate of return, my recommendation was to allow for each property a fixed rate upon the initial valuation. The exact rate would depend upon the character of the property, particularly upon its credit standing. In most instances, the rate would probably be 7 per cent, less in cases of exceptionally good credit, and more in cases of particularly poor credit. Upon all new investments, the rate would be determined by the actual cost of money incurred by the company through the issuance of securities. The installation of new property, and the issuance of securities, would be definitely under the control of the commission. At no point after the initial valuations could there be dispute either as to the rate base or the rate of return to which the company is entitled and upon which the consumers are obligated to pay.

Elimination of Conflicting Interests

Upon such an accounting basis, rates would be fixed, in general, to cover the cost of service, including the return upon the properties in accordance with exact quantities of record. There would be no guess-

work or estimates based upon opinion. The rates as a whole for a company would be calculated to bring sufficient revenues to cover (1) operating expenses, including maintenance and depreciation, (2) all taxes, and (3) the return on the property as determined on the new accounting basis. In addition, provisions would be made for a "rate equalization reserve" to prevent frequent shifts in general rate levels. To this reserve would be credited any excess revenues above the total cost of service, and there would be deducted any deficiency of revenues below the cost of service. If the reserve advanced beyond a reasonable point, the commission would order a general reduction in rates; and if it fell below a reasonable point, the commission would order an increase. The return actually obtained by the company would not, however, be affected by the amount of the reserve. All these matters would be kept under exact accounting control.

Rates in general would thus be fixed upon a definite cost basis, with the substitution of the initial valuation and rate of return for the actual cost of capital with respect to existing properties.⁴ The commission, however, would have full power to fix such rate differentiation among the various classes of consumers as would seem reasonable, with due regard to the various conditions of service. In formulating a rate schedule, the commission would incur no conflict of interest between the company and the consumers as a whole, but it might discover sharp differences as between various classes of consumers. A given electric rate schedule for example, would meet properly the rights of the investors, but might include such differentials between domestic and power users as to arouse dispute between the two groups. Such conflicts of interest between classes of consumers cannot be completely avoided, but they can be greatly limited by refinements of accounting so as to show much more accurately the cost of furnishing service under different conditions than has been provided for under the uniform systems of accounts adopted by the commission.

The chief conflict in regulation, however, has not occurred between classes of consumers. It has been due rather to the lack of definiteness as to total revenue requirements to cover total costs of service. If the aggregate over-all costs were once definitely established by the accounts, the conflict of interest between the companies and the consumers as a whole would be eliminated and the principal cause of breakdown in regulation would be removed. Such a system would free the commission from the present time-consuming procedure, so that it could

⁴There would be every practicable safeguard of the stated return to the companies, if attainable through the adjustment of rates. But the return would not be guaranteed by the taxing power of the state. The final risk of whether compensatory rates can be commercially established, would be left upon the investors.

devote itself to other problems of regulation which up to the present have been largely ignored. Very little study has been given to rate schedules and the proper relation of the different classes of rates, and little effort has been made to promote efficiency of operation and to assure the public the most satisfactory and economical service.

Majority and Minority Proposals

The plan of rate control above outlined was placed before the Revision Commission early in the hearings, and was made the basis of inquiry of most of the technical witnesses. At the conclusion of the hearings, there was virtually unanimous agreement that the basic defect in the existing system is the indefiniteness and variability of "fair value" and rate of return. There was agreement also as to the general desirability of establishing for every company a fixed rate base and exact returns as proposed by the writer. The majority of the Revision Commission, however, concluded that the establishment of such a mandatory plan could not be carried out under the constitution; that under the Supreme Court decisions, the "fair value" of a property cannot be permanently limited by legislative action; that higher or lower "values" must be recognized with changing price level and reproduction cost.

As a practical expedient, the majority recommended that an initial valuation of all existing properties be made, and that the Public Service Commission be empowered to enter into limited-term contracts of ten years with the companies, incorporating within the contracts definite provisions for fixed rate base and return for the period of the contract. At the expiration of each contract, the commission would endeavor to effect a renewal, and redetermine the valuations and return in the light of then existing conditions. Bills to carry out such a program were introduced in the legislature. The companies opposed these measures as involving useless expenditure of funds, and virtually declared that they would not enter into such contracts.

After legislative hearings, both bills were materially amended. The compulsory, state-wide valuation of all properties was abandoned, and merely a permissive valuation of any property was authorized as may be warranted in the opinion of the Public Service Commission. The bill as finally passed added virtually nothing to the present law, except the mandate to make the municipalities parties in any such valuation proceedings. Likewise the contract bill was vitally amended, and, as passed, merely conveyed to the municipalities the right to enter into rate contracts with the companies for limited periods of ten years. Both bills were vetoed by Governor Roosevelt, on the ground that they failed completely to meet the basic difficulties in the present system

of regulation and that they would perpetuate the present absurdities of rate-making.

The minority of the Revision Commission introduced a set of bills which incorporated the mandatory plan of a fixed rate base and return as above described. These bills received the approval of Governor Roosevelt, and were sponsored by the Democratic minority in the legislature. As a vital part of the minority program, one of the bills proposed to grant to every municipality the full right to establish municipal ownership and operation, either through the purchase of existing properties or the installation of new properties, if the existing properties could not be purchased at a reasonable price. The grant of this right was deemed essential to prevent undue opposition of the companies through litigation against the mandatory system of rate-making.

The minority bills were actively supported before the legislative hearings, but were never brought to a vote. At the close of the session, there was an *impasse* as to policy between the Republican majority of the legislature on the one side, and the Governor and the Democratic minority on the other. The latter group stands firmly upon the mandatory cost system as the requisite of effective regulation, not only in the interest of the consumers, but also of the vast majority of investors. Notwithstanding the basic criticism of the present system by the majority of the Revision Commission, the Republican majority of the legislature now stands virtually committed to the defense of the existing order. The issue will thus go before the people of the state in the gubernatorial and legislative campaign, and, for the first time in the history of regulation, fundamental policies and methods will be discussed before the voters.

A Constitutional Question

Whatever the political line-up which followed the report of the Revision Commission, the difference in policy basically involves the difference in conception of the constitutional restraints upon valuation and rate of return.⁵ As already stated, the majority of the Revision Commission held that a fixed rate base and return could not be established under the Supreme Court decisions. This view is probably held

⁵ This statement applies strictly only to the majority and minority reports of the Revision Commission, but not to the Republican majority in the legislature. This latter group apparently never considered seriously the establishment of the fixed rate base, whatever the constitutional questions might be. It eliminated from its bills every idea of any fixed rate base. It not only ignored the comprehensive bill prepared by the minority of the Revision Commission, but disregarded equally an alternative bill which would have limited the fixed rate base to future-acquired property. It passed by similarly other bills designed for the same end, but calculated to avoid, particularly, constitutional objections.

by most constitutional lawyers, particularly by those who have given special attention to public utility matters. So far as expressed legal opinion is concerned, the majority appears well fortified in its position. While it admits the administrative and financial difficulties in the present system, it refuses to propose legislation which, in its opinion, would inevitably collapse before the courts.

The minority of the Revision Commission and the Governor have taken a different view of the fundamental law. They are supported, also, by first-rate legal opinion. They recognize, of course, that there is a constitutional question involved, and that, possibly, the effort to establish a fixed rate base and return might be finally defeated in the courts. They are convinced, however, that no decision has ever been made by the Supreme Court which necessarily would preclude such a legislative policy as proposed in the minority bills. They feel, therefore, that the best course is to establish by statute a definitive program, and then meet the issues on broad economic public grounds, when the opposition takes the form of actual litigation. They believe that if the purposes of the state are then clearly presented to the courts, and if the legislation has been reasonably carried out, the statute would stand the test of judicial scrutiny; that the new system would be upheld because of its inherent reasonableness and fundamental necessity, if regulation is to be made an effective instrument of public policy.

Adequate legal discussion is a long and intricate one. We shall present merely a summary of the principal points involved. The first and, perhaps, major question is whether any Supreme Court decision on valuation and return has ever dealt with such a situation as would be created if the minority bills became law. Up to the present, every decision has been concerned either with rates fixed directly by statute, or fixed by a commission under such an undefined system as prevails in New York. No state regulatory statute has ever before established a comprehensive plan of rate-making, by specifically defining, accurately establishing and systematically protecting the reciprocal rights of investors and consumers, and by providing distinctly for the various relations of the utilities and the public, including rates, financing and expansion of service.

A New Situation

If the New York minority bills were to become law and were brought for adjudication before the Supreme Court, there would certainly be a very different situation than was ever faced in any previous case. The court would then have to decide whether a complete legislative policy, must, perforce, be declared unconstitutional because of past

judicial declarations, when, in fact, no such definite program had ever been placed before the court for previous adjudication.

There is, however, the somewhat exceptional St. Louis and O'Fallon case, in which the Interstate Commerce Commission attempted to use substantially the same plan of valuation as proposed in the New York minority bills. The Supreme Court in that case decided that the Interstate Commerce Commission had not made the allowance for reproduction cost required under the law of the land. This particular case differs from the New York proposal in two important respects. First, the statute itself had directed the commission in fixing its valuations to follow the law of the land, and thus give consideration to reproduction cost. The commission had disregarded the express mandate of the statute under which it functions, and this fact was the direct basis of the Supreme Court's decision. The situation would have been altogether different if Congress had stated explicitly that the commission must determine the valuations in the manner actually adopted in the case.

There is a second difference between the O'Fallon case and the plan proposed in the New York minority bills. The initial valuations made by the Interstate Commerce Commissions were based upon pre-war prices, to which were added the actual cost of subsequent additions. The Transportation act, however, under which the case arose, was enacted in 1920, after the great rise in price level and reproduction costs had taken place. Hence, even if the 1920 statute had directed the commission to use the initial valuations, plus actual cost of subsequent additions, it would have had the retroactive feature of adopting a lower level of valuation applicable to the past, when a much higher level had already been established, and might, therefore, have been viewed as confiscatory and unconstitutional. The proposed New York plan has no such retroactive feature. The initial valuations would give full legal consideration to prices, costs and other conditions prevailing at the time of enacting the statute. They would not attempt to enforce a lower level than justified at the time of the valuations.

This is the basic constitutional question: In the interest of public policy, to establish fair and exact rights and dealings between the consumers and investors and to make regulation effective, can the "fair value" of existing properties be fixed once and for all for future rate-making, or must the amount be left permanently indefinite and variable, notwithstanding the almost insuperable difficulties of the consequent rate administration? The valuations must, of course, be fair; but the question is whether they can be fixed now only with respect to rate-making for the present, or whether they can be fixed now for the purpose of all future rate-making. Suppose, in a particular instance,

the "fair value" of an existing property were now found to be \$10,000,000 for immediate rate-making. The question is, cannot similarly a definite sum of \$10,000,000 (or some other figure) be fixed also as the permanent "fair value" of present properties for all future rate-making? If the amount is fairly determined with due regard to rights of investors as well as consumers, why can it not remain permanently for the future?

This question has never been before the Supreme Court, for no such comprehensive legislation has ever been enacted. Until it appears in actual litigation, no one can say conclusively what the Supreme Court would decide. But when it arises, if then the economic situation is fully presented, showing that the valuation had been fairly made, that rate-making would be rendered futile unless fixed valuations are maintained, that not only the interest of the consumers but also the protection of the investors is involved, that only under such conditions can the returns be properly assured and the development of the property systematically provided for—if there is such complete presentation of facts in defense of the statute—there is every reason to assume that the law would be sustained and the purposes of the state not frustrated because of vague earlier statements made under other conditions.

Dubious Conception of Value

The opinion of lawyers that a fixed rate base cannot be established through legislative action as a matter of public policy, is largely based (1) upon an erroneous economic conception of the nature of the "value" that is involved, and (2) upon false analogy between valuation for rate-making and valuation in condemnation proceedings.

As to basic conception, most lawyers look upon *value* as a thing inherent within a property, or within the several units; that the amount naturally varies from time to time, and that it must be determined by the rate-making body according to conditions existing when rates are to be fixed. This view, however, is based upon the legal characteristics of private property, which, except as to ordinary police regulations, may be used for any purpose as determined by the owner, at such compensation as he may be able to obtain under competitive market conditions. But that situation is different from valuation for public utility rate-making.

What the lawyers usually fail to grasp is the fundamental difference between private property, which is not subject to legally limited earning power, and public utilities which are affected with a recognized public interest, and which, therefore, are subject to legally limited returns. To determine the value of private property does require the consideration of the facts at the time, particularly the earning power at prices

or rates charged without legal control; the *value* follows the earning power. But for a public utility, the "value" must be determined before the rates can be fixed; hence the basis must be objectively established, without regard to rates and earning power. It must be fair to investors as well as consumers, but it must be predicated basically upon factors of public policy rather than upon economic value resting upon earning power resulting from rates or prices determined under free market conditions and without legal limitations. Such an objective standard might include either actual cost, reproduction cost, or securities issued—none of which depends upon earning power—but it could not be the same basis of value that controls for private property.

What the Supreme Court decisions amount to up to date, is that under our present system fair dealing with the companies requires present allowance for reproduction cost. But if upon reasonable public grounds, to make rate-making effective and to protect investors as well as consumers upon an administrable basis, the state in its sovereignty decides upon a different plan, there is nothing inherent in the character of the value of the properties that will prevent for the future the establishment of a fixed rate base and return. The amount can be fixed permanently for the future as well as for the immediate present. The question before the court would be whether such a plan, systematically established by legislation, really serves the public interest, and whether investors as well as consumers are fairly protected. The court would have no concern with the wisdom or folly of the policy, but only with the question of fact whether there is confiscation.

Assume that the proposed New York plan were to become law. If, then, all existing properties were fairly appraised, with due regard to present price levels and costs, and if subsequent actual investments are added to the rate base, and if systematic provisions are made for maintenance and depreciation, and if the properties are further safeguarded by rate equalization reserves, and if systematic provisions are made for prompt rate adjustments upward as well as downward—where would there be confiscation? Unless there is plainly a taking of private property for public purposes without due compensation, there would be no confiscation, and the statute would stand.

Inept Condemnation Analogy

With regard to the condemnation analogy, the lawyers do not conceive clearly the differences between a utility property valued for rate-making, and the taking of private property in condemnation proceedings. The condemnation law does require the fixing of the value according to conditions at the time the property is taken for public purposes. Such property, however, is almost invariably *private* in

every legal sense, and the owner must be compensated for the value sacrificed at the time of the taking. But the legal status of a utility is altogether different. At the time any utility investment is made, it is immediately vested with public interest, and it is that fact which places the property under public control with respect to rates, while private property prior to condemnation was not subject to such limitation. Property legally subject to limited earning power, must have a different basis of valuation than private property without such limitation prior to condemnation.

If there is any substantial analogy between public utility valuation and condemnation, it appears at the time a public utility investment is made and the time when private property is taken for public purposes. At each of these times, the property becomes vested with public purposes and ceases to be private; it no longer retains the freedom of private price fixing. If this analogy were followed consistently, the basis of compensation for public utility property would be fixed at the time the investment is made and the property becomes endowed with public interest, as the law requires in the case of condemnation. When a piece of private property is taken, the price is fixed once for all, and the basis of payment to the owner is thus permanently determined. What the New York plan proposes, is to establish exactly the same policy with respect to all future public utility investments, to fix the basis of compensation definitely, just as in condemnation, at the time the property is dedicated to public purposes. This should be a simple legal proposition, and would be actual investment.

The difficulty appears with respect to existing utility properties whose basis of compensation was not definitely established when they were vested with public interest and then ceased to be private property. This failure is due to the gap in our past legislation, and, therefore, past utility investments have been subject to redetermination of "value" with changing conditions. The basic question before the Supreme Court under the proposed New York plan, would be: Can the compensation upon existing utility properties be fixed now upon a definite and exact basis, just as in the case of condemnation, or must it be left permanently subject to variation according to changing conditions?

Why, indeed, would not the Supreme Court approve the fixing of a definite basis of compensation, just as obtains generally in condemnation, provided that the plan really has merit and does not actually result in taking private rights for public purposes without reasonable compensation? The few lawyers who have an adequate grasp of public policy involved in rate-making, and who understand the difference between economic value and a rate base, are quite confident or, at least, hope that the Court would approve with satisfaction a plan of rate-

making wh
igation. I
den of dec
cases. Th
part of
nite admi
welcome s

Apart
considera
ties of r
minor in
vision Co
1930 leg
following
linked w
(1)
(2)
Commis
(3)

When
pany w
under r
of hold
control
largely
holding
agerial
also fu
All th
over w
The p
profit
Bot
these
major
tract
Publi
not i
ing,
also

making which would clear away the vast amount of unsatisfactory litigation. It cannot possibly wish to retain permanently the great burden of deciding recurrently between public and private rights in rate cases. That responsibility properly belongs to the commissions as a part of rate-making; and all litigation can be eliminated through definite administrative standards. Why should not the Supreme Court welcome such a system?

Other Regulatory Problems

Apart from standards of rate-making, the Revision Commission gave consideration also to other conditions which have added to the difficulties of regulation. The statute contained a considerable number of minor inconsistencies and gaps, upon which all members of the Revision Commission agreed, and appropriate changes were made by the 1930 legislature. Besides the minor matters, there were at least the following issues of special importance, which, however, are closely linked with the problem of the rate base and return:

- (1) The holding company problem;
- (2) The ascendancy of the judicial function of the Public Service Commission;
- (3) The encroachment of the federal courts upon state regulation.

The Holding Company

When the New York statute was enacted in 1907, the holding company was unimportant as a form of organization and was not brought under regulation. In recent years, there has been a rapid development of holding company systems, which have brought under centralized control properties located in various states. Actual management has largely passed out of the hands of the local operating companies. The holding companies or affiliated corporations perform all sorts of managerial services, including engineering, financial, accounting and legal; also furnish supplies, construct new properties, and install equipment. All these intercompany arrangements are carried out under contracts over which the Public Service Commission has had virtually no control. The payments by the operating companies have resulted in tapping off profits under the guise of operating expenses or capital charges.

Both majority and minority of the Revision Commission agreed that these important matters should be brought under state control. The majority bill passed by the legislature requires the filing of every contract between an operating company and holding company with the Public Service Commission. If it be found that any such contract is not in the public interest, the commission, after investigation and hearing, is authorized to disapprove the agreement. The commission is also given access to the accounts of the affiliated interests. The bill

was approved by Governor Roosevelt, who, however, considered the measure inadequate to serve properly the public interest, and recommended more vigorous legislation at a later time.

The Judicial Rôle

While the Public Service Commission was originally intended primarily as a representative or protective body in behalf of the public, with the passage of time it was gradually transformed into a judicial body, at the expense of the representative function. As a result, the consumer interests have not been adequately protected. In the ordinary case, the company's side is fully presented by counsel and experts, whose costs are included in operating expenses charged to the public. On the consumer side, this responsibility has fallen largely upon the municipalities, whose active participation has depended often upon political expediency, and seldom upon systematic policy, with adequate appropriation for experts, lawyers and investigations. So the consumers have paid the bill of thorough presentation for the companies, while their own side has gone largely by default.

To meet this situation, the majority of the Revision Commission recommended that a special office of people's counsel be created, and a bill was passed by the legislature placing the position in the Attorney-General's office, to act as direct public representative, without judicial responsibilities. The bill was vigorously opposed by municipal officials, as well as by the utilities. It was vetoed by the Governor, on the ground that it would work to weaken the Commission as a public body. He held that the function which the bill aimed to transfer to the Attorney-General's office really belongs to the Commission itself. It would reduce the Commission to the rôle of "a mere utility court, in which the people would have to fight their unequal battle against the huge resources of public utility corporations."

The ascendancy of the judicial rôle of the commission has been due mainly to two factors: (1) Insufficient appropriations by the legislature to make adequate investigations; and (2) the conflict of interest which developed because of inadequate standards of rate-making under the "fair value" rule. Under a separate bill approved by the Governor, more liberal provisions were made and a research bureau was created. With these better provisions, and with the change in personnel of the commission, much more vigorous action in behalf of the public should result.⁶ The chief problem, however, will not be

⁶ William A. Prendergast, chairman, resigned in February, and was succeeded by Milo R. Maltbie, who, before the war, was a member of the Public Service Commission (First District), and who has a countrywide reputation as rate expert, appearing for municipalities and other public bodies. Commissioner William R. Pooley has been succeeded by the appointment of M. C. Burritt.

solved until a workable standard of rate-making is established. The judicial rôle will subside when conflicts of interest are removed. In the meanwhile, the function of public representation can be strengthened, but it inevitably faces limitations before the necessity of judicial action where actually there are opposing interests. As a permanent proposition, the commission should be primarily an administrative body, operating under a definite statutory system, with practically no judicial responsibility. This is the goal of the minority bills.

The Federal Courts

A final condition which has cut seriously into the effectiveness of regulation, has been the interference by the federal courts. Often, when the commission fixes rates under statute, the companies, if discontented, apply for injunction to the federal courts, under the Fourteenth Amendment to the Constitution. Whatever investigations and findings of fact the commission may have made, the federal court upon taking jurisdiction, usually appoints a special master, who proceeds to make a new record, without regard to the previous inquiry by the commission. The master usually is unacquainted with rate-making and the problems of valuation. The procedure thus involves duplication of effort and lack of acquaintance with the facts and policies of regulation.

To meet the federal court situation, a bill was passed by the legislature to take advantage of Section 266 of the United States Judicial Code, and to provide a method by which jurisdiction may be kept within the state courts pending the determination of the matter under litigation. This bill was approved by the Governor, because it may offer some relief from the existing situation. He pointed out, however, that congressional action is essential to limit the jurisdiction of the lower federal courts with respect to intrastate public utility matters. The legislature adopted and forwarded to Congress a resolution asking for federal legislation in line with the Governor's suggestion.

Probably, however, no material improvement can be obtained by merely limiting the jurisdiction of the lower federal courts. The basic difficulty appears in the lack of adequate yardsticks. If the rights of investors and consumers were exactly determined, without resort to guesswork, there would be no competition for advantageous jurisdiction. While there would be need to bring holding companies and their affiliates under regulation, the problem of federal interference, as well as the problem of adequate public representation, would practically disappear. The commission would be freed from virtually all judicial responsibilities, and would be able to devote its energies to positive purposes of regulation.

New York City

JOHN BAUER

PROPOSED NATIONAL BANKING LEGISLATION

Earlier difficulties of the national banks. Passage of the McFadden Act. Position of national banks still regarded as unsatisfactory. New legislation proposed. I. Regional branch banking proposed by Mr. Pole. Sentimental appeal of unit bankers. Need for careful survey of branch and chain banking developments. II. Growth in number of outside branches relatively limited. Extended development of branch banking confined to two states. Wide growth of chain banking in states prohibiting or restricting establishment of branches. Nearly one-fourth of total loans and investments in chain and state-wide branch systems. III. Probable effectiveness of proposed legislation. Reduction in failures likely. Increase in profits more doubtful under regional branch systems. Proposal worthy of support, (a) as a means of combatting the growth of chain banking, and (b) because of the inadvisability of legal interference with sound banking evolution. IV. Other suggested legislation. Loans to one borrower. Real estate loans. Segregation of departmental assets. V. Limits of banking legislation. Conclusion. Bibliographical note.

About the year 1915, the national banking system, after half a century of successful endeavor, began to give ground before the competitive superiority of the state banks. On June 23, 1915, the aggregate resources of all national banks amounted to \$11,795,685,000, out of a total for all banks (exclusive of mutual savings and private banks) of \$23,317,081,000. Five years later, on June 30, 1920, national banking resources totalled \$22,187,459,000, as compared with \$46,023,671,000 for all the banks of the country except mutual savings banks and private institutions. The corresponding figures for the call of June 30, 1926, were \$25,315,624,000 and \$56,296,903,000, respectively, the national banking resources constituting 45 per cent of the total on this date, as against 48 per cent in 1920, and just over 50 per cent in 1915. It was clear that the state banks were gaining ground at the expense of the national institutions.¹

The difficulties in which the national banks found themselves were attributed in large measure to the branch banking powers which were permitted to state banks in certain states, but were denied to national banks operating in the same territory. For several years in succession, both the Federal Reserve Board and the Comptroller of the Currency recommended to Congress legislation which would broaden the branch banking powers of the national banks.² In response to the agitation for legislative action, Representative McFadden introduced a bill into Congress on February 11, 1924; but three years were to elapse before the measure, in somewhat amended form, was to become law. Meanwhile, the advocates and opponents of branch banking were not slow to make themselves heard. The defenders of unit banking were, on the whole, somewhat more vociferous than the adherents of branch banking, although their arguments were designed to appeal to senti-

¹ The foregoing data are from the *Annual Reports of the Comptroller of the Currency* for the years in question.

² *Federal Reserve Bulletin*, December, 1924, pp. 926-928, and the *Annual Reports of the Comptroller of the Currency*, 1922 and 1923.

ment rather more than to reason. Nevertheless, they were successful in attaining the desired end when Congress finally acted.

The McFadden act received the President's signature on February 25, 1927. Its provisions have been discussed in detail in an earlier issue of the REVIEW and require no extended comment in the present connection.³ It will suffice to point out that, while on the floor of Congress, this measure was generally referred to as a branch banking bill, and that it was the part of the bill which dealt with branch banking which was deemed to be of the greatest importance in restoring the waning popularity of the national banking system. Under the provisions of the McFadden act, the national banks were permitted to establish home-city branches in cities where state banks had this privilege, while the spread of state-wide branch banking was impeded by prohibiting the establishment of out-of-town branches by member state banks after the date of passage of the Act. In addition, non-member state banks were to be permitted to join the federal reserve system only upon relinquishing any out-of-town branches established after the passage of the act.

Sufficient time has not yet elapsed to judge the effectiveness of the McFadden act in rehabilitating the national banking system. The national institutions gained slightly on the state banks in respect to total resources up to June 30, 1928, but in the year following again lost ground.⁴ In any event, the position of the national banks is not regarded as satisfactory, and remedial legislation is again suggested. The purpose of this article is to consider the remedy most widely proposed, to comment on its probable effectiveness, and to suggest certain other changes in the National Bank act which appear to be called for.

I

In order to improve the position of the national banks, an extension of branch banking powers is again suggested. As in 1922 and 1923, the suggestion has the official support of the Comptroller of the Currency⁵ and Secretary of the Treasury Mellon has recently given a qualified approval to an extension of branch banking activities.⁶ The tenor of the argument, however, has changed. In the earlier period, it

³ H. H. Preston, "The McFadden Banking Act," June, 1927, pp. 201-218.

⁴ At the time of writing—April, 1930—the *Report of the Comptroller of the Currency* for 1929 is not available to the writer. Total loans and investments of state banks, however, as well as total deposits, increased slightly during the year ending June 30, 1929, while the corresponding totals for national banks decreased somewhat during the same interval. *Federal Reserve Bulletin*, "Condition of All Banks in the United States," January, 1929 and 1930.

⁵ "National Banks Need Branches," address of Mr. J. W. Pole before the American Bankers Association, 1929.

⁶ Letter of February 24, 1930, to the Chairman of the House Banking and Currency Committee.

was the loss of national banking capital in the larger cities which caused the chief concern. Thus the Federal Reserve Board, in its 1922 report, pointed out that the establishment of branches by the larger state banks "had gone so far in a few states, notably California, and in a few large cities, including New York, Cleveland, and Detroit, as to reduce greatly the number of national banks," and the utterances of the Comptroller of the Currency, in his 1922 report, were in a similar vein. Since the McFadden act provided relief against the branch banking competition of state banks in the large cities, the advocacy of a further extension of branch banking powers must obviously rest on different grounds.

The basis of most of the current recommendations for national banking legislation is to be found in the carefully prepared address of the Comptroller of the Currency before the American Bankers Association in the fall of 1929.⁷ In this address Mr. Pole contrasts the prosperous condition of the large metropolitan banks with the low earnings and numerous failures which have characterized country banking during the past few years. Although the difficulties of the country banks have been assigned to many causes, he finds that "one primary and fundamental cause covers all of the others: namely, that diversification of business is not generally possible." The operation of branch systems throughout more or less extended economic areas would seem to offer the best solution of the difficulty. Relief is being sought, even in the face of legislative restrictions, through the establishment of groups or chains of banks under common control; but this method of meeting the problem is less satisfactory, on the whole, than legalized branch banking. Mr. Pole accordingly recommends an extension of branch banking privileges for national banks. He does not believe that nationwide branches should be permitted, but would limit branch systems to the federal reserve districts or, preferably, to economic areas to be determined by a committee of experts appointed by Congress.

Mr. Pole's views may be taken as representative of the group advocating an extension of branch banking powers—a group which appears to have gained rather than lost strength during the past few years. Nevertheless, the opposition is still in evidence, and now, as formerly, makes its appeal to sentiment rather than to reason. The following excerpt from Mr. George W. Davison's address to the American Bankers Association⁸ will serve to illustrate the general nature of the argument advanced by the Simon-pure advocate of unit banking.

So far as concerns the solidarity of the banking community, the historical relationships of correspondent banks are cemented by strong, invisible ties of

⁷ J. W. Pole, *op. cit.*

⁸ Annual Convention, 1929, "Banking Evolution in America."

loyalties and
dealing and
as these?
proud of t
action?

It is, p
ally losin
banking
as B. M.
of a syst
point. T
banking.
of revolu

As a
banking
The gro
to signi
branch
of bank
that, "
very lin
branch
tions, i
of chain
the pro

Office
are to
first c
in the
to dat
able
of the
latest
the fi
Th
ant b
of th
Fadd

"S
tion,"
10

11
Bulle

loyalties and business friendships arising out of years of fair and honorable dealing and mutual confidence. What ties of branch banking can be as strong as these? What can we do to make stronger the ties which bind together men proud of their independence, their individual integrity and their freedom of action?

It is, perhaps, no cause for wonder that the unit bankers are gradually losing ground. Yet not all of the arguments in favor of unit banking are of this inspired character. A few capable observers, such as B. M. Anderson and R. S. Hecht,⁹ have pointed out some advantages of a system of unit banks to which reference will be made at a later point. These men, however, are not out-and-out opponents of branch banking. They merely urge caution with respect to the introduction of revolutionary changes in the American banking system.

As a matter of fact, even the current literature in support of branch banking tends to exhibit a fatalistic rather than enthusiastic tone. The growth of chain banking, in the face of legal restrictions, is held to signify an inevitable evolutionary trend. Granting this, legalized branch banking is to be advocated as superior to a further development of bank chains or groups. Mr. Davison, on the other hand, affirms¹⁰ that, "statistically stated, the branch banking movement to date is very limited," but he is concerned with what might happen if regional branch banking were permitted. In view of these rather conflicting positions, it seems advisable to present the existing evidence on the extent of chain and branch banking before undertaking a critical analysis of the proposed legislation.

II

Official data on branch banking developments in the United States are to be found in various issues of the *Federal Reserve Bulletin*. The first comprehensive survey of the branch banking situation appeared in the December, 1924 issue, the data there presented being brought up to date from time to time¹¹ as additional information became obtainable. The most recent survey (December, 1929) includes a summary of the earlier figures for comparative purposes, and also presents the latest reliable information on chain banking. Unless otherwise noted, the figures cited in the present section are taken from this source.

The accompanying table depicts in summary form the more important branch banking developments since June, 1924. It is with the later of these changes, which have occurred since the passage of the McFadden act, that we are primarily concerned. It will be noted that the

⁹ See the *Chase Economic Bulletin*, "Bank Consolidations in a Period of Speculation," October 12, 1929, and Dr. Anderson's quotations therein from Mr. R. S. Hecht.

¹⁰ In the address previously cited, note 8.

¹¹ In the June, 1926; May, 1927; February, 1929; and December, 1929, issues of the *Bulletin*.

TABLE I
SUMMARY OF BRANCH-BANKING DEVELOPMENTS: 1924-1929¹

Class of bank or branch, etc.	June 30, 1929	June 30, 1928	Feb. 25, 1927	June 30, 1924
Number of banks.....	25,115	25,950	26,973 ²	28,996
Number operating branches:				
Total.....	818	835	779	714
Member banks, total.....	354	355	334	299
National.....	164	169	145	108
State.....	190	186	189	191
Nonmember banks.....	464	480	445	415
Size of branch systems: number of banks operating:				
1 branch.....	443	469	446	376
2 branches.....	153	150	127	129
3 to 5 branches.....	130	126	124	176
6 to 10 branches.....	37	35	35	
Over 10 branches.....	55	55	47	
Not classified.....				33 ³
Location of parent bank: number in cities having in 1920 a population of—				
100,000 or more.....	359	372	353	289
50,000 to 100,000.....	84	81	65	108
25,000 to 50,000.....	70	66	61	
Less than 25,000.....	305	316	300	
Not classified.....				33 ³
Character of systems: number of banks operating—				
Home-city branches only.....	518	526	476	391
Outside branches only.....	252	262	261	283
Home-city and outside branches.....	48	47	42	40
Branches in operation				
Total.....	3,440	3,230	2,900	2,293
Of member banks.....	2,291	2,161	1,950	1,383
National.....	993	941	390	248
State.....	1,298	1,220	1,560	1,137
Of nonmember banks.....	1,149	1,069	950	908
Location of branches: number located—				
In home city of parent bank.....	2,362	2,214	1,929	1,508
Outside home city.....	1,078	1,016	971	785
Establishment of branches: number estab- lished—				
De novo as branches.....	2,329	2,214	1,996	.....
By purchase of banks.....	958	853	735	.....
No report of method.....	153	163	169	.....

¹ Source: *Federal Reserve Bulletin*, December, 1929, p. 766.² March, 1927.³ Mutual savings and private banks.

total number of banks decreased from 26,973 in March, 1927, to 25,115 in June, 1929, while the number of banks operating branches increased from 779 to 818 in the same interval, so that the proportion of banks operating branches to all banks rose from 2.9 per cent to 3.3 per cent between the two dates. During the same period, the total number of branches increased from 2,900 to 3,440, the proportion of branches to independent banks (including parent banks of branch systems) rose from 10.75 per cent to 13.7 per cent. Looked at from a different angle, the number of banks operating branches increased by 0.5 per cent in the course of the period, while the number of branches increased by 18.6 per cent, showing a tendency for the size of the branch systems to increase.

While these comparisons show a substantial growth in branch banking, they are apt to be misleading as an indication of branch banking developments in the country as a whole. In the first place, the present controversy is not concerned with the development of home-city branch systems. The usefulness of such systems was recognized by the McFadden act which permitted national banks to establish home-city branches where state banks were allowed to do so. The real controversy over branch banking has been, and is, concerned with the question of out-of-town branches only. It is accordingly the growth in the number and strength of outside branches which is of real significance in the appraisal of recent branch banking developments. Then, in the second place, it is necessary to study the regional distribution of branch systems if a true picture of the existing situation is to be obtained.

Reference to Table I shows that the number of outside branches increased from 971 on February 25, 1927, to 1,078 on June 30, 1929, an increase of 11.1 per cent as compared with the increase of 18.6 per cent in the total number of branches. The growth of outside branches has thus been rather limited, but inasmuch as the number of banks operating outside branches decreased by 1 per cent (from 303 to 300), the tendency appears to be towards slightly larger systems of branches. This may be accomplished by member banks operating under the McFadden act through the consolidation of two or more existing branch systems; and some consolidations of this sort have, in fact, occurred since 1927. Some nonmember banks have also built up larger systems in this fashion. Thus, in the year ending June 30, 1929, one national banking system in California with 144 branches resulted from a merger of a national bank with 97 branches and a state member bank with 53 branches, while a nonmember system of 140 branches was the outcome of mergers of a Los Angeles nonmember bank with a Los Angeles national bank with 35 branches, a San Francisco

state bank with 53 branches, and 27 other banks with some 22 branches.¹

An examination of the regional distribution of branch banking systems in the United States indicates the existence of definite branch banking and unit banking areas. The extent and importance of these areas is shown in Table II, which gives the number and location of branches in the different states together with the present legal status of branch banking. The state-wide branch banking area is seen to be

TABLE II
NUMBER OF BRANCH SYSTEMS AND LOCATION OF BRANCHES, JUNE, 1929¹

State or District	Number of banks	Banks operating branches	Branches		
			Total	In home city	Outside
State-wide branch banking permitted					
Arizona.....	46	7	22	.....	22
California.....	455	54	861	330	531
Delaware.....	48	7	12	3	9
District of Columbia....	41	11	23	23	.....
Maryland.....	235	33	125	68	57
North Carolina.....	428	42	77	11	66
Rhode Island.....	33	11	35	16	19
South Carolina.....	223	12	50	7	43
Virginia.....	481	38	60	27	33
Wyoming.....	87	.....	.....	.....	.....
Branches restricted as to location					
Kentucky.....	572	9	26	24	2
Louisiana.....	226	42	108	52	56
Maine.....	134	24	61	6	55
Massachusetts.....	452	86	154	135	19
Michigan.....	742	61	433	430	3
Mississippi.....	312	11	25	1	24
New Jersey.....	567	53	103	93	10
New York.....	1,141	106	682	681	1
Ohio.....	1,029	58	259	228	31
Pennsylvania.....	1,589	81	169	161	8
Tennessee.....	490	31	67	28	39
Establishment of branches prohibited by law—operation of existing branches permitted					
Alabama.....	350	5	19	.....	19
Arkansas.....	420	2	3	.....	3
Georgia.....	420	16	34	11	23
Indiana.....	986	4	9	8	1
Minnesota.....	1,072	2	6	6	.....
Nebraska.....	846	2	2	2	.....
Oregon.....	235	1	1	.....	1
Washington.....	344	3	5	3	2
Wisconsin.....	964	6	9	8	1
No branches in operation					
Other States.....	10,142	.....	.....	.....	.....

¹ Source: *Federal Reserve Bulletin*, December, 1929, pp. 769-770.

² *Federal Reserve Bulletin*, December, 1929, p. 764.

limited to eight states, Wyoming banks being allowed to operate branches but not doing so, while the banks in the District of Columbia have only home-city offices. Furthermore, the development of branch banking has not been extended in a number of these eight states. It is, of course, impossible to state just what constitutes an extended development. Nevertheless, it will prove convenient to select an arbitrary dividing line for the sake of clarity in drawing conclusions. Let us say, then, that branch banking of an extended character exists in states where the total number of branches plus the parent offices equals or exceeds the total number of banks less parent banks of branch systems. Using this criterion, only two of the eight states, California and Rhode Island, show an extended development, with Maryland hovering near the dividing line.

In the remaining states in which some banks are operating outside branches, these branches were established prior to the enactment of the existing restrictive or prohibitory legislation. A large number of the outside branches of such banks are no more than suburban offices which should be included under the head of home-city branches from an economic viewpoint; but a few states, notably Louisiana and Maine, appear to have fairly widely extended state-wide systems which had been built up before the current restrictions were enacted. Relieved from the onus of restrictive legislation, the branch systems of such states might easily show a pronounced further development.

In the group of states in which branch banking is prohibited by law, the number of branches in operation is so small as compared with the number of unit banks that any prediction as to what would happen if the prohibitory legislation were relaxed is quite out of the question. It is in certain states in this group, however, that chain banking has had its most vigorous development; and it will be necessary to examine the evidence with respect to this disguised form of branch banking before coming to any conclusion on the statistical position of branch banking in our existing banking system.

Information concerning the extent of chain banking development on June 30, 1929, is contained in Table III. On that date, there were in operation 230 chains of banks comprising 1,561 institutions, 596 of which were national associations. Chains of three or more banks only are included, since the operation of two affiliated banks (usually a national and a state institution) in the same locality is a fairly old practice and one that does not partake of the nature of branch banking. Of the 230 chains listed in the table, 37 are composed of 3 banks, 45 of 4 banks, 31 of 5 banks, 82 of 6-9 banks, 21 of 10-14 banks, 9 of 15-19 banks, 3 of 20-29 banks, and 2 of 30-39 banks. The most pronounced development so far has thus been in the group of moderate sized chains of from 6 to 9 banks. It is also interesting to note that

TABLE III
CHAINS AND BANKS IN CHAIN SYSTEMS, BY STATES; JUNE 30, 1929¹

State	Number of chain systems	Number of banks in chain systems		
		Total	National	State
Total.....	230	1,561	596	965
State-wide branch banking permitted				
Arizona.....	1	6	1	5
California.....	4	30	20	10
Delaware.....				
District of Columbia.....				
Maryland.....				
North Carolina.....				
Rhode Island.....	1	3	1	2
South Carolina.....				
Virginia.....				
Wyoming.....	2	10	3	7
Branches restricted as to location				
Kentucky.....	1	4	4	
Louisiana.....	2	10	6	4
Maine.....	1	5	2	3
Massachusetts.....	4	33	19	14
Michigan.....	11	71	3	68
Mississippi.....				
New Jersey.....	12	49	22	27
New York.....	17	111	58	53
Ohio.....	1	6	3	3
Pennsylvania.....	9	38	12	26
Tennessee.....	3	10	6	4
Establishment of branches prohibited by law				
Alabama.....	3	22	11	11
Arkansas.....	4	63	13	50
Colorado.....	2	13	8	5
Connecticut.....				
Florida.....	4	32	13	19
Georgia.....	6	23	8	15
Idaho.....	3	23	7	16
Illinois.....	11	81	20	61
Indiana.....	1	3	2	1
Iowa.....	12	92	33	59
Kansas.....	10	55	15	40
Minnesota.....	34	279	130	149
Missouri.....	4	26	7	19
Montana.....	2	15	4	11
Nebraska.....	9	63	15	48
Nevada.....	2	14	2	12
New Mexico.....	1	6	4	2
Oregon.....	6	32	14	18
Texas.....	6	37	7	30
Utah.....	5	50	12	38
Washington.....	11	62	26	36
West Virginia.....				
Wisconsin.....	5	35	14	21
No provision regarding branch banking				
New Hampshire.....				
North Dakota.....	7	60	20	40
Oklahoma.....	8	59	41	18
South Dakota.....	5	30	10	20
Vermont.....				

¹ Source: *Federal Reserve Bulletin*, December, 1929, p. 771.

70 per cent of all the chains in operation and 75 per cent of all the banks in chain systems are in the group of states which prohibits the establishment of branch banks or in which the law is silent but no branches have been established. The remaining chains are almost entirely in the states in which branches are restricted as to location, there being only eight chain systems comprising a total of 49 banks in the states which permit state-wide branch banking. Apparently, chain systems have developed in lieu of branch systems in those sections of the country where branch banking is either restricted to urban localities or prohibited entirely.

If the banks which belong to chain systems are added to the outside branches of the branch banking systems of the country, the development of branch banking assumes added significance. Comptroller of the Currency Pole, in commenting on this development, states that¹³ "considering group banking as a phase or form of branch banking and counting each branch as a banking office, there are about 29,000 banking offices in the country as a whole, 6,000 of which are not strictly speaking unit banks. In other words, something over 20 per cent of all banking offices in the United States may be classed as branch banks." This is, of course, technically correct, but exaggerates the significance of branch banking proper—with which the current controversy is concerned—by the inclusion of home-city branches. Omitting home-city branch offices from consideration entirely, the number of banks in chains plus outside branches amounts to 2,639, or about 10 per cent of the total number of banks plus outside offices. The conclusion to be drawn would seem to be that, numerically, the development of branch banking proper, including banks in chains, has not as yet reached significant proportions in most sections of the country. On the other hand, the rapid growth of chain banking in the last few years might lead one to suspect a decided change in the direction of state-wide systems if the present restrictive legislation were relaxed.

More important than the numerical growth of branch and chain systems is the extent of the resources controlled by them. Fortunately, some data are available on the latter phase of the situation.¹⁴ A summary of the loans and investments of banks in chains and groups, and banks operating branches, as compared with loans and investments of independent banks, is shown in the following table.

¹³ "National Banks Need Branches," *op. cit.*

¹⁴ After the completion of this article, a new study of branch, chain and group banking became available in the *Federal Reserve Bulletin* for April, 1930. The data contained in Table IV are from this source. This survey also contains statistics on the numbers of branch and chain banks on December 31, 1929. The most significant modification of data in Tables I-III, as shown by the December, 1929, figures, are as follows:

TABLE IV

LOANS AND INVESTMENTS OF BANKS IN AND NOT IN CHAIN OR GROUP SYSTEM, OPERATING AND NOT OPERATING BRANCHES, BY AREAS: DECEMBER 31, 1929¹
(IN MILLIONS OF DOLLARS)

Area	All banks	Banks in chains or groups			Banks not in chains or groups		
		Total	Not operating branches	Operating branches	Total	Not operating branches	Operating branches
United States.....	58,417	11,177	4,913	6,264	47,240	28,401	18,839
State-wide branch banking.....	6,623	1,709	213	1,496	4,914	2,326	2,588
Branches restricted as to location.....	36,642	5,986	1,624	4,362	30,656	14,500	16,156
Establishment of branches prohibited.	14,130	3,252	2,846	406	10,878	10,783	93
No provision regarding branch banking....	1,019	230	230	.....	789	789	.....

¹ Source: *Federal Reserve Bulletin*, April, 1930.

The data bring out the fact that loans and investments amounting to \$30,016,000,000 out of a total of \$58,417,000,000 for all banks in the United States, are controlled by banks operating branches or in chains and groups. Yet the comparison must be qualified if it is not to be misleading; for systems of home-city offices cannot be considered as branch systems in any real sense of the word. A fair estimate of the loans and investments of real branch systems may be obtained by adding the figure for banks operating branches in the state-wide branch banking area to the total for banks in chains and groups. While it is true that this procedure leaves out of account the loans and investments of those banks in the other areas which do operate outside branches, the discrepancy should not be large because many of the outside offices of the latter banks are suburban branches just outside the limits of the home city which are to be considered, from the economic standpoint, as so many home-city branches.

Proceeding on the basis suggested, the loans and investments of branch and chain systems combined are found to amount to \$13,765,000,000, or slightly under one-fourth of the total, instead of

Number of banks.....	24,630
Operating branches.....	822
Number of branches.....	3,547
In home city.....	2,432
Outside home city.....	1,115
Number of chains or groups.....	287
Number of banks in chains or groups.....	2,103

trifle over one-half. Even this lower proportion, however, is by no means insignificant; and the fact that \$9,238,000,000 of the \$13,765,000,000 represent loans and investments of banks in groups or chains in territory where branch banking is either restricted or prohibited should be sufficient indication that the problem of branch banking legislation requires serious consideration by Congress.

III

Having surveyed the actual branch and chain banking developments in the United States, attention may be directed to an analysis of Mr. Pole's proposal for an extension of branch banking powers. Mr. Pole has expressed concern over the very large number of bank failures—mostly of small banks—in recent years, as well as the unsatisfactorily small profits of country banks; and he has advocated an extension of the branch banking privileges of national banks as a remedy for these defects. To what extent would legislation of the sort suggested be successful in attaining the desired ends?

As regards the prevention of bank failures, it seems highly probable that an extension of branch banking to a regional basis would afford a beneficial influence. Under such a régime, country branches would be likely on the whole to be more strictly managed than the run of independent country banks, while a powerful parent bank with a large capitalization would be in a better position to withstand such losses as did occur than would the small unit bank with insufficient capital. Thus the country depositor would receive greater protection in many instances than at present. It is not possible, however, to dispose of the matter in this summary fashion, as there are some valid arguments on the side of the unit bank.

While it is probably true that there would be fewer bank failures under a system of regional branch banking than at present, it must also be remembered that there would be fewer banks, and that the failure of a single large bank with a substantial branch system might well cause losses and inconvenience to a far larger number of depositors and stockholders than would suffer from the more frequent and more numerous failures attendant upon a system of unit banking. Ordinarily, the suspension of a number of unit banks does not affect the solvency of other independent institutions, while the improper management of only a portion of the branches of a branch system may result eventually in the insolvency of the entire system. Although the larger bank tends to be managed more soundly than the small institution, inferior management is not a necessary characteristic of the small unit bank.

Mr. Pole, however, does not blame the plight of the small country bank on mismanagement, but rather on the inability to diversify its

business. This is not a completely satisfactory explanation of the numerous small bank failures of recent years. It is usually not necessary for a bank to tie up all of its funds in local loans. While it is a maxim of good banking practice that local customers shall receive first consideration, there can be no justification for using this rule as a pretext for granting unsound local accommodation. That many of the loans of the banks recently suspended have been of the latter character can scarcely be doubted. The bank that lends locally only to legitimate borrowers is almost sure to have some surplus funds for outside investment. As illustrative of this, Mr. Howard Whipple, writing on a new type of personal credit record for country banks,¹⁵ states that "it acts as a sort of black list of former borrowers whose credit transactions have been unsatisfactory. It shows unmistakably the frozen loans and those which should be eliminated. It enables the executive officers to maintain a closer control of the bank's credit extensions. If properly handled by reasonably competent men, it will greatly aid in changing a bank in unliquid condition to one of considerably more than average liquidity. One bank reduced its local loans to 20 per cent of its total assets without denying legitimate credit to those who were entitled to it." Mr. Whipple's evidence is indicative of the fact that, if the country bank is insistent on ruling out unsound credit risks, it will be more than likely to have ample surplus funds with which it may diversify its business through the purchase of commercial paper, bank acceptances, high grade bonds, etc.

To look at the matter from a slightly different angle, bank failures in a system of unit banks tend to eliminate weak spots from the entire banking system that, under a system of branch banking, might continue to exist through an effort on the part of the banks to avoid undue losses.¹⁶ That there is hardship to the depositors of the failed banks will be granted, but that the banking system is strengthened through the clearing out of the deadwood must also be admitted. As Dr. Anderson puts it,¹⁷ "When many thousands of independent banks must independently meet their obligations at the clearing-house every day, it is impossible to carry economic mistakes anything like so far as is possible when only a few great banks dominate the picture." Of course, the Comptroller's plan does not contemplate nation-wide branch banking by a few great banks; but the forces noted by Dr. Anderson would be likely to operate to some extent even with district or regional branch banking; for the failure of a large district branch system would not be looked on with equanimity by either the other banks or the

¹⁵ *American Bankers Association Journal*, January, 1930, p. 709.

¹⁶ See B. M. Anderson, *op. cit.*, p. 11.

¹⁷ *Ibid.*

government. Efforts would probably be made to save the bank at the expense of the liquidity of the whole banking system. The proportion of failures might thus be reduced, but the advantage of the reduction to the banking system might well be offset, in large part at least, by a concomitant decrease in liquidity.

On the score of greater profitability, an extension of branch banking does not appear to promise particularly satisfactory results. Although a prediction of this sort involves a considerable element of opinion, the rather meager data which are available tend to support such an inference. The evidence presented in the preceding section of this paper shows that there is really only one state in the Union—California—in which branch banking of an extended nature has been developed to a high pitch. Further, of the more than 800 branches operated in that state, over half are branches of national banks. The branch offices of the latter institutions are greater in number than all the banks of the state, while the total number of branches, state and national, is nearly double the number of separate institutions. These comparisons are presented in detail in the accompanying table.

TABLE V

CALIFORNIA BANKS OPERATING DOMESTIC BRANCHES AND NUMBER OF BRANCHES: JUNE 1928 AND 1929¹

Number of banks		Number of banks operating branches						Number of branches operated					
		National		Member state		Non-member		National		Member state		Non-member	
1928	1929	1928	1929	1928	1929	1928	1929	1928	1929	1928	1929	1928	1929
496	455	14	13	7	6	42	35	478	488	163	109	185	264

¹ Source: *Federal Reserve Bulletin*, December, 1929.

There exists in California, then, as wide a development of regional branch banking by national banks as would be at all likely to develop in other sections of the country if the Comptroller's recommendations were incorporated in the law. Significance therefore attaches to the profits of national banks in California in relation to national bank profits in other parts of the country.¹⁸

In the six months ending June 30, 1928, a period of generally prosperous conditions, the net addition to profits of the California national banks amounted to 4.5 per cent of their capital and surplus. The corresponding ratio (net addition to profits to capital and sur-

¹⁸ The profit ratios for national banks in the following tabulation have been either taken directly or computed from the earnings data published in the *Annual Report of the Comptroller of the Currency* for 1928.

plus) for national banks in various sections of the country during the same period was as follows:

New England States.....	5.00
Eastern States.....	5.41
Southern States.....	4.75
Middle Western States.....	4.29
Western States.....	3.69
Pacific States (excluding California).....	5.37
Alaska and Hawaii, nonmember.....	6.18
Total United States.....	4.93

The net addition to profits of the Los Angeles and San Francisco national banks, which includes the profits of the large branch systems, amounted to 4.78 per cent of their capital and surplus. This compares favorably with the ratio of 4.13 per cent for the country national banks of the state, but is nevertheless lower than the corresponding ratio for the national banks in a number of other sections in the country. Moreover, in the last six months of 1927, a period of business recession, the situation within California was reversed, the ratio for Los Angeles and San Francisco banks amounting to 2.9 per cent as compared with 4.3 per cent for the banks outside those cities, while the ratio for all California national banks during the same period, 3.2 per cent, was considerably lower than the ratio of 4.28 per cent for all national banks throughout the country.

At the time this is being written (April, 1930), the earnings data for national banks by states, as reported by the Comptroller of the Currency, are not available for the year ending June 30, 1929. Earnings data for national and state member banks by federal reserve districts, however, have been published for this period in the *Federal Reserve Bulletin*.¹⁹ While the twelfth federal reserve district contains a number of states in which branch banking is not permitted, the California banks so dominate the situation as to permit a legitimate comparison of earnings in the twelfth and other federal reserve districts.²⁰ The ratio of net addition to profits to capital and surplus for the national banks of each district, and for all national banks, for the six months ending June 30, 1929, is shown in the following table:

Boston District.....	2.9
New York District.....	5.5
Philadelphia District.....	4.1
Cleveland District.....	4.8
Richmond District.....	4.3
Atlanta District.....	5.0

¹⁹ For six months ending June 30, 1929, see the *Federal Reserve Bulletin*, January, 1930, pp. 49-50.

²⁰ On June 30, 1928, the national banks of California had a combined capital and surplus of \$220,417,000, as compared with \$280,166,000, for all national banks in the twelfth federal reserve district. (*Annual Report of the Comptroller of the Currency*, 1928, p. 660.)

Chicago District.....	7.9
St. Louis District.....	5.7
Minneapolis District.....	0.9
Kansas City District.....	5.8
Dallas District.....	6.7
San Francisco District.....	4.8
Alaska and Hawaii.....	9.8
Total United States.....	5.3

It will be observed that the ratio was smaller in the San Francisco district than in six of the other districts, and appreciably smaller than the corresponding ratio for all national banks.

The foregoing comparative statistics of bank earnings are of very little significance in showing the relative profitability of branch and unit banking. In the first place, they cover too brief a period; and, secondly, they take no account of possible differences in economic conditions in California and other sections of the country. One significant inference may, however, be drawn from these data. They indicate clearly that variations in profitability are more vitally connected with sectional economic conditions than with the presence or absence of branch banking. The most hardy optimist would scarcely care to affirm that branch banking would have resulted in satisfactory earnings in the Minneapolis district in the past few years; nor is there any certainty that the fairly substantial profits of the banks in the Dallas district would have been appreciably enhanced under a branch banking régime. It may be claimed in this connection that a vital comparison has been omitted, namely, the relation between national and state bank earnings in California before the Bank of Italy brought its many branches into the national system. Earnings data for California state banks are not available to the writer; but approximate accuracy may be secured by comparing national and state member bank earnings in the twelfth federal reserve district before and after 1927 when the Bank of Italy made the change referred to. This has been done in the following table:

TABLE VI

RATIO OF NET PROFITS TO CAPITAL AND SURPLUS: 12TH FEDERAL RESERVE DISTRICT¹

Year ending June 30	National banks	State member banks
1924	6.9	11.3
1925	7.7	11.9
1926	8.4	12.9
1927	...	...
1928	8.1	7.0
1929	8.8	12.1

¹ Source: *Annual Reports of the Comptroller of the Currency and the Federal Reserve Bulletin*.

It does not seem possible to draw any satisfactory conclusion from the above data. The higher ratio of earnings of the state member banks in the three years preceding 1927 would appear to indicate the superiority of branch banking from the standpoint of profits, especially since the national banks showed a higher rate of profit than the state member banks in 1928. In 1929, however, the ratio was decidedly in favor of the latter group of banks again, in spite of the fact that the national banks of the district were operating four times as many branches as the state bank members. It is hard to reconcile these 1929 ratios with the contention that the higher earnings of the member state banks in the years before 1927 were a result of the branch banking activities of those institutions.

Although quite incapable of adequate statistical verification, it is not unreasonable to conclude that an extension of branch banking to a regional basis would not provide a certain remedy for the inadequate profits of the banks in certain sections of the country. Unless some of the regions were made very large, there would be no great improvement as regards the possibilities of diversification. Branch banking throughout a territory coincident with the Minneapolis federal reserve district, for example, would have been of little avail in mitigating the subnormal earnings of banks in that district during the past year. The country national banks of New York State, on the other hand, have shown fully as high a rate of earnings on the average as the banks in the cities during the past several years and would not have benefited particularly by being branches of the city institutions. If banks in New York could have operated branches in Minnesota and neighboring states, the advantages of diversification would have been apparent to the banks in the latter region; but no such widespread branch systems are contemplated under current proposals.

Everything considered, the beneficial effects which may be anticipated from an extension to a regional basis of present branch banking arrangements seem to have been somewhat exaggerated. Too much stress may easily be placed on the technical advantages of branch banking with a consequent underestimation of the importance of underlying economic conditions and sound banking judgment. Nevertheless, legislation of the sort recommended by Mr. Pole is worthy of support for at least two reasons. In the first place, this is about the only feasible method of combatting the continued growth of chain or group banking. If banking is to be carried on by systems of offices under central control, it is far better that such systems should be on a legally authorized branch banking basis, subject to effective and unified supervision, than that they should operate as ostensibly independent units, actually under the control of a holding company and subject to regulation as separate institutions by a number of different authorities. It is no

no doubt true that many of the chains now operating are capably and carefully managed; but assurance of honest management in every instance necessitates thorough and careful supervision by a single authority.

A second reason for advocating a relaxation of the present restrictions on branch banking is the inadvisability of interfering with sound banking evolution through legal restriction. Much effort has been wasted in defending enforced unit banking on the sentimental ground that the country's development may be attributed in no small measure to the splendid and often unselfish efforts of a host of independent bankers. One might as well advocate the legal prohibition of aeroplanes because the railroads have performed valiant service in the economic development of the country. No one wants to require branch banking to the exclusion of the independent banker. The reasonable attitude to take, however, is that branch banking should be permitted to develop in those sections of the country where such an arrangement would furnish the most efficient banking service.

There is no need to fear that a relaxation of the present branch banking restrictions would lead to an immediate and far-reaching abandonment of the unit system. The degree to which unit banking would be displaced would depend upon the relative advantages of the two types of arrangement in any given section of the country and also upon the efficiency of the unit bankers. In some regions, the independent banker would doubtless retain the upper hand, while in others, to the needs of which branch banking is best suited, the less efficient unit banks would be forced out in the course of time. State-wide branch banking is permitted in Wyoming, but no branches have been established, while in California branch banking has dominated the situation. A similar disparity would probably continue under the proposed regional plan. In any event, the decision as to which type should prevail in any section would rest with the public and would be based on the sound evidence of relative efficiency. Both branch and unit banking have certain advantages and defects; but there can be no reasonable objection to either type of arrangement so long as the banks are soundly operated and well supervised.

IV

If the National Bank act is to be amended, the revision should not stop with a relaxation of branch banking restrictions. There are certain other points at which the statute needs revamping. One of these is the section (Sec. 5200, Rev. Stat.) dealing with loans to a single borrower. The original national banking law fixed this limit at 10 per cent of the lending bank's paid-in capital, with the exception that lia-

bilities as acceptor of bills of exchange be permitted to the extent of one-third of the bank's capital. In 1906, the limit was extended by including surplus with capital stock as the basis of the 10 per cent limit. Another amendment in 1919 added certain exceptions, but left the general limit at 10 per cent of the lending bank's unimpaired capital and surplus. Finally, the McFadden act further increased the number of exceptions, while yet leaving the general limit unchanged. The present content of Section 5200 is, on the whole, thoroughly unsatisfactory and is in need of overhauling.

In the first place, the general limit of 10 per cent is too low. The reason for any limitation on loans to one borrower is to prevent an undue concentration of risk by forbidding the bank to lend too large a proportion of its funds to a single enterprise in a particular industry. In this way, diversification is assured within a given industry, but that is all. That is, a bank located in a single industry town, or in a one crop country district, might split up its loans among a number of competing producers under compulsion of the law; but it would not be forced thus to diversify its risks among different industries or different geographic localities. It may, of course, lend to a variety of merchants and dealers in the town; but, since their prosperity is affected by that of the dominant industry, the bank's situation is not greatly improved thereby. A certain amount of diversification is unquestionably desirable, but there are distinct limits to the extent to which the practice can be successfully pursued, especially as regards diversification within a given industry.²¹

A bank which is narrowly limited in the matter of making loans to a single borrower is likely to suffer in two ways. First, it may lose the business of an excellent customer, or a considerable portion of it. A fairly large concern is very likely to open a line of credit with a large city bank if the banks in the locality are unable, singly or collectively, to extend it the credit which it needs and to which it is entitled. The local banks are thereby prevented from securing any, or at least a large part, of the business of the best credit risk which the town affords. Secondly, the local bank may be tempted to lend to individuals or enterprises with inferior credit standing in order to keep its funds at work. The pressure on a bank to lend locally is strong; and, while absolutely bad risks may be easily refused, many loans will perforce be granted which are not as satisfactory as those which are ruled out by the limitation. The very process of diversification, if carried out blindly, and to the fullest extent, means a lack of care in selection; for the process of selection, by throwing out the undesirable

²¹ See Hastings Lyon, *Investment*, Chapter 26. Lyon is concerned with diversification as applied to investment securities, but his contentions also hold good for bank loans.

risks, limits the extent of the diversification. This is not meant to affirm that diversification in bank loans is worthless; but too narrow restrictions do tend to limit a bank's power of selection, thus causing it to lose opportunities which, if embraced, would have added to the strength of its loan portfolio. The extent to which diversification is carried should be determined in larger measure than is now possible in the bank's credit department instead of on the statute books.

Section 5200 might well be amended, then, by relaxing the limit on straight line of credit loans from 10 per cent to 20 or 25 per cent of the lending bank's capital and surplus. This would permit the national banks to pursue a policy of somewhat more selective diversification than is now possible with resultant improvement of their loan portfolios. It would also place them more nearly on a plane of equality with the state banks of many states, where the restriction on loans to one borrower is less rigid than for national banks, thus increasing the desirability of national charters. The relative decrease in national banking resources following the Great War was, in certain instances, more largely a result of the narrow limitation on loans to one party than of the prohibition of branch banking by national banks.

The Union Trust Company merger in Cleveland, Ohio, which absorbed the two largest national banks in that city and which accounted for the substantial slump in Cleveland national banking resources after 1920, is a case in point. In a detailed study of Cleveland banking developments, the writer found²² that the Union Trust Company was organized under state charter, not to take advantage of branch banking privileges as was generally supposed to be the case, but primarily because the state law permitted loans to a single borrower amounting to 20 per cent of the lending bank's capital and surplus as opposed to the 10 per cent limit for national banks. This example is of particular interest since Cleveland was specifically mentioned in the reports of the Comptroller of the Currency and of the Federal Reserve Board, as well as elsewhere, as one of the places where branch banking by state institutions had had a material influence in weakening the national system.

While the 10 per cent limit of Section 5200 should, it seems to me, be relaxed, the wide list of exceptions to this general restriction should be sharply decreased. The exceptions, eight in number, are as follows:

(1) Obligations in the form of drafts or bills of exchange drawn in good faith against actually existing values. No limitation.

(2) Obligations arising out of the discount of commercial or business paper actually owned by the person, copartnership, association, or corporation negotiating the same. No limitation.

²² *Recent Banking Developments in the City of Cleveland* (Ann Arbor, 1926) unpublished.

(3) Obligations drawn in good faith against actually existing values and secured by goods or commodities in process of shipment. No limitation.

(4) Obligations as indorser or guarantor of notes, other than commercial or business paper excepted under (2), having a maturity of not more than six months, and owned by the person, corporation, association, or copartnership indorsing and negotiating the same. Limited to an additional 15 per cent of capital and surplus.

(5) Obligations in the form of banker's acceptances of other banks of the kind described in section 13 of the Federal Reserve act. No limitation.

(6) Obligations of any person, copartnership, association, or corporation, in the form of notes or drafts secured by shipping documents, warehouse receipts or other such documents transferring or securing title covering readily marketable nonperishable staples when such property is fully covered by insurance, if it is customary to insure such staples. In addition to the initial 10 per cent limit, an elastic limit is provided for, the percentage of capital and surplus which can be so loaned increasing from 15 per cent, when the market value of the security is 115 per cent of the loan, to 40 per cent, when the market value of the security is 140 per cent of the loan.

(7) Obligations of any person, etc., in the form of notes and drafts secured by shipping documents or instruments transferring or securing title covering livestock or giving a lien on livestock when the market value of the livestock securing the obligation is not at any time less than 115 per cent of the face amount of the notes covered by such documents. Limited to an additional 15 per cent of capital and surplus.

(8) Obligations secured by obligations of the United States government. Limited to an additional 15 per cent of capital and surplus.

While these exceptions help to offset the rigidity of the general 10 per cent limit, they do so in a most undesirable fashion. Exception (2) discriminates in favor of "such business as the lumber, some branches of the tobacco business, the jewelry and piano trades, plumbers' supplies and agricultural implements," which, as Professor Phillips has pointed out,²³ are the only trades in which the use of the promissory note persists. Exception (6) is undesirably complicated; and it, together with exception (7), discriminates in favor of agriculture. Exception (3) seems to duplicate exception (1) to a large extent and might well be eliminated. Finally, exception (4), which gives added leeway in the discounting of non-commercial paper, is entirely out of place in the National Bank act and should be removed from the statute.

²³ *Bank Credit*, p. 169.

When it is remembered that a majority of the biggest and best concerns in the country, representing the highest type of credit risk, borrow on the basis of their own unsecured promissory notes, it seems clear that a real improvement would result if the national banks could lend to such business enterprises to the extent of two or three times their present ability. At present, the methods employed by these concerns in borrowing funds subjects them to the rigid 10 per cent limit, while almost all other types of obligation, some of which are distinctly inferior to the best class or line of credit loans, are subjected to lesser restrictions or no restriction at all.

If the general restriction of 10 per cent contained in Section 5200 were to be broadened to 20 or 25 per cent of the lending bank's capital and surplus, as suggested, it would no longer be necessary to include exception (8). Exceptions (2), (3), (4), (6), and (7) have already been shown to be discriminatory, duplicatory, or undesirable. The exceptions, then, might well be reduced to two in number, the present exceptions (1) and (5) being ample to meet any legitimate demand for credit in excess of the general limit.

There are three other ways in which the state banks in a number of states have an advantage over the national banking associations. They are, first, less rigid restrictions on the granting of real estate loans; second, smaller minimum capital requirements; and third, laxer supervision. The question arises as to whether it would be desirable to amend the National Bank act in any or all of these respects.

With regard to real estate loans, the McFadden act broadened the limit for total real estate loans of national banks from 25 per cent of the bank's capital and surplus or one-third of its time deposits to 25 per cent of capital and surplus or one-half of its savings deposits. The maturity of urban real estate loans was also extended from one to five years. The broadening of the limit on aggregate real estate loans made possible an increase of approximately \$500,000,000 in the real estate loans of national banks; but the restriction is still more stringent than for most of the state banks.

In spite of the apparent advantage of the state banks, there does not appear to be any good reason for a change from the present provision of the National Bank act in this connection. In the first place, the national banks as a whole still have considerable leeway before they even approach the existing limit. On June 30, 1928, the total real estate loans made under the authority of Section 24 of the Federal Reserve act, as amended by the McFadden act, amounted to \$942,644,000.²⁴ On the same date, the amount of savings deposits in national banks totalled \$7,291,684,000,²⁵ leaving a margin of over \$2,500,000,000

²⁴ *Annual Report of the Comptroller of the Currency*, 1928, p. 81.

²⁵ *Ibid.*, p. 42.

by which real estate loans might be increased within the present limit of the law.

A second reason for maintaining the present restriction is to be found in the protection which should be accorded to savings depositors. Theoretically, savings deposits may properly be used as a basis for real estate loans; but there are practical reasons why too large a proportion of such deposits should not be so used. Real estate values are difficult to appraise soundly under normal conditions, different experts not infrequently placing rather widely varying valuations upon the same property. To quote from Professor Phillips,²⁶ "in one case an appraiser recommended, reluctantly, a loan of \$18,000 on a certain tract. Soon thereafter the owner succeeded in borrowing \$40,000 on the security of the same land. In another instance, which occurred accidentally and unknown to the appraisers concerned, two appraisers employed by the same lending company, and both experienced men, appraised the same farm and were so far apart in their valuations that the difference was greater than either the margin or the equity on the basis of what the owner himself would have regarded as a fair loan." Appraisal of urban real estate is not so uncertain, but is not devoid of difficulty. In times of real estate boom the problem becomes still more difficult, valuations almost inevitably being placed too high to accord with safety. The unfortunate recent failures of large numbers of banks in certain sections of the country are, in many instances, to be traced to this source. It is also true that real estate loans are largely granted locally; and, since local property values in general depend on local prosperity, too great a concentration of bank loans in such channels unduly decreases the diversification of risk. The fact that the loans are distributed among a large number of borrowers affords slight protection at a time of general collapse of real estate values in the vicinity. All told, a further relaxation of the restrictions on real estate loans of national banks is not to be recommended.

While it is doubtless true that the low minimum capital requirements and lax methods of supervision in some states have attracted banks to the state systems in those localities, it hardly seems necessary to state that the National Bank act should not be changed in these respects. Rather, the state laws should be amended where necessary to meet the more satisfactory provisions of the national law. As B. M. Anderson has pointed out in discussing the recent bank failures,²⁷ "the figures were swollen . . . by the failure of a large number of very inadequately capitalized banks, the laws of certain states permitting banks to be organized with a capital of ten thousand dollars in small places. There is need for reform in the banking laws to make sure that all banks have adequate capital, and that all banks are large enough so that they can

²⁶ *Op. cit.*, pp. 283-284.

²⁷ *Op. cit.*, p. 7.

afford to employ men with real banking training." If a community is not wealthy enough to raise more than \$10,000 for the establishment of a bank, the inhabitants would do better to do their banking business in some larger neighboring community. With the present automotive facilities, this would be no great hardship. As to supervision, it is usually the banks in the smallest places which require the strictest regulation; and any relaxation of the present efficiency in the supervision of the national banks would be a distinct step in the wrong direction.

Finally, it should be noted that there is one connection in which the National Bank act appears to call for an addition to its present regulatory provisions. The trend toward the department-store type of banking, which was to be observed among some of the state institutions prior to the war, led to the inclusion in the Federal Reserve act of sections permitting national banks to exercise trust powers and to make real estate loans. The McFadden act somewhat increased the latter power, as already noted, and also legalized certain dealings in investment securities. Thus, at the present time, the national banks are well equipped as far as the law is concerned, to engage in departmental banking. The evolution of this type of banking has come about, in large part, in response to the desire of bank customers and depositors to transact practically all of their financial business with a single convenient institution. There is nothing wrong with this, but there is a distinct element of danger if the affairs of the various departments are not kept separate and distinct. It is in the latter connection that the National Bank act is in need of amendment.

The most essential addition is to provide for a complete segregation of the assets of the different departments where this does not already exist. In addition, a part of the capital and surplus might well be assigned to each department on the basis of the proportion of each department's resources to the total resources of the bank, or in some other satisfactory fashion. Inter-departmental transactions should also be subject to the most careful scrutiny and supervision to insure their real merit. At present, the law requires the segregation of assets held in a fiduciary capacity only, a provision which ought to be extended to cover any other departments which the bank may operate. This is, of course, no novel suggestion. The laws of nineteen of the states²⁸ already contain more or less extensive provisions for the segregation of records and/or assets of savings and other departments. The banking laws of California, which call for a segregation of capital, reserves, records, and assets in banks carrying on a departmental business, are especially satisfactory in this respect and might well be used as a model for an amendment to the National Bank act.

²⁸ According to a survey published in the *Federal Reserve Bulletin*, June, 1926, pp. 416-419.

V

It is to be neither expected nor hoped that legislation of any sort will provide a cure for the difficulties which the banking system, or parts of it, may encounter from time to time, and which are often due in large measure to industrial and economic conditions or incapable management. The best that the law can do is to protect the public and the great run of bankers against unsound practices and fraud, and to permit banking development to follow a natural course within the limits set up by sound banking principles and the government's duty to the host of bank creditors.

The suggestions included in this article are offered therefore, not as a panacea for existing banking difficulties, but rather as amendments which appear to be called for in the interests of sound banking development. The current agitation for branch banking, as well as that which occurred prior to the passage of the McFadden act, has, it seems to me, very often exaggerated the beneficial effects which may be expected to follow a relaxation of present branch banking restrictions, while certain other unsatisfactory aspects of existing legislation have received practically no attention. But no legislation, however scientific and desirable, can provide a remedy for bad banking judgment or generally unsatisfactory economic conditions in particular areas. It is to the latter factors that much of the recent distress is to be attributed.

As regards the relative significance of national and state banks in the American banking system, it seems probable that legislation of the sort suggested would strengthen the national system by increasing the attractiveness of national charters. There will doubtless be some objection to permitting regional branch banking by national banks on the ground that the latter would thereby be placed in a competitive position superior to that of the state banks. This objection loses most of its weight, however, when it is remembered that the states have, on the whole, never refrained from enacting legislation which would weaken the position of the national institutions. The national government may quite properly allow the national banks all the advantages that are compatible with sound banking development, while yet maintaining such restrictions as are essential to the safety of depositors and to the prevention of undesirable practices. Having done this, it may rest assured that the national banking system will prove attractive to the best, if not to the largest number, of banking institutions.

FREDERICK A. BRADFORD

Lehigh University

The following brief bibliographical note is appended for the benefit of those who would like to pursue the question of branch banking further. It is by no means complete, but includes the bulk of the published material on the subject.

Books:
Collins
South
H
Ost
Surveys
May
Proceed
P
of C
T. C
Ban
Nex
Ban
Best
Article
And
Be
Be
Car
Fo
Mc
Mc
—
P
"P
G
Offi

Books:

Collins, C. W., *The Branch Banking Question*. (New York, Macmillan, 1926.)
 Southworth, S. D., *Branch Banking in the United States*. (New York, McGraw-Hill, 1928.)

Ostrolenk, B., *The Economics of Branch Banking*. (New York, Harper, 1930.)

Surveys of the Federal Reserve Board:

"Branch Banking," *Federal Reserve Bulletin*, December, 1924; June, 1926; May, 1927; February, 1929; December, 1929.

Proceedings of the American Bankers Association; *A.B.A. Journal*, October, 1929:

Pole, J. W., "National Banks Need Branches;" Hecht, R. S., "The Great Web of Chain Banking;" Davison, G. W., "Banking Evolution in America;" Hammond, T. O., "Group Banking in the Northwest;" Price, A., "The Advantages of Group Banking;" Nahm, M. B., "Old Fashioned Unit Banking;" Sensenich, E. H., "The Next Step in National Banking;" Hamilton, G. H., "A Way Out for National Banks;" Cantley, S. L., "Unit Banks Must Unite;" Beebe, M. P., "Unit Banking Best for Agriculture;" Hendrix, C., "Agriculture Needs Branch Banking."

Articles and statements:

Anderson, B. M., "Bank Consolidations in a Period of Speculation," *The Chase Economic Bulletin*, October 12, 1929.

Beckhart, B. H., "The Branch Bank Problem," *New York Herald Tribune Magazine*, April 20, 1930.

Beebe, M. P., "Future of the Independent Country Bank," *American Bankers Association Journal*, February, 1930.

Carter, E. A., "How Will Group Banking Affect the Federal Reserve?" *American Bankers Association Journal*, March, 1930.

Foster, M. F., "Canada's Experience with Branch Banking," *American Bankers Association Journal*, February, 1930 and March, 1930.

McFadden, L. T., "The Nation's Money," *New York Herald Tribune Magazine*, April 13, 1930.

Mellon, A. W., "Extract from Annual Report Discussing Branch and Group Banking," *American Bankers Association Journal*, December, 1930.

—, "Letter to House Banking and Currency Committee," *New York Times*, February 27, 1930.

Pondrom, J. A., "A Brief for Independent Banking," *American Bankers Association Journal*, January, 1930.

"Banking, Group and Branch," A 10,000-word survey of the chief current problem in American finance. *Fortune*, February, 1930. Unsigned.

Groups declared to hold half of bank resources—Governor of Federal Reserve Board tells Committee of growth of branch, chain and group operations—Mr. Young believes increase in this type of banking shows there exist sound reasons for methods pursued. *Commercial and Financial Chronicle*, March 22, 1930.

"The Nation Is Facing Another Banking War," *Forbes*, February 15, 1930. Unsigned.

Official document:

Hearings on Branch, Chain and Group Banking, H. Res. 141, 1930.

No attempt has been made to cover the literature appearing prior to the passage of the McFadden act. Mr. Collins' book, listed above, is well annotated and will be found to constitute an excellent summary of the earlier situation.

STATIC AND DYNAMIC ECONOMICS

Static economic theory is primarily a decomposition of the social phenomenon into units of individual activity. Such decomposition constituted the essence of traditional economics, which has used this analysis as a means of passing ethical judgments, of evaluating changes, and sometimes of forecasting future development. But this analytic essence of traditional theory is of little use in dynamic economics which deals with changes of social phenomena in time.

The quantitative method is of small value to the essential task of static economics. But it is of cardinal importance in dynamic economics, since it permits the study of a variety of continuous manifestations which, upon preliminary analysis, form the materials to be utilized in the future systematic theory of economic changes.

I

Ever since the golden days of undisputed classical economics, economic theory has been a battleground of widely divergent views. True of the most important problems such as value and price, this perennial impasse was still more so in the realm of methodology. The early clash between the classical and the historical schools was followed by a no less acrimonious discussion between the adherents of the inductive and of the deductive methods. At present, statistically minded economists are lumped together into the quantitative school as opposed to the neo-classical. And recently, both on the continent and in this country, the by now venerable dichotomy of static and dynamic economics has been revived. It is to the significance of the latter pair of concepts that this paper addresses itself.

The distinction was first introduced into economic theory by J. S. Mill, who in his turn took it from Comte. It played an important part in the arrangement of Mill's principles, and was still more important with Cairnes, whose work may be considered the apex in the development of the classical school. In the early stages of the marginal utility approach, the distinction receded in importance and was relegated to the "introduction," there confined to the proposition that economic theory is to devote itself for the time being exclusively to statics. This change was obviously due to the nature of the unifying principle laid down by the marginal utility school at the base of its theoretical system. This principle, much less than an element such as labor cost, allows of any discussion of processes of change, even if a conjectural historical generalization like the Malthusian law of population is to be used. The like is also true of the mathematical school, in whose work the gradual disappearance of any material substance in the unifying principle has reached its culmination. The unity came to reside not in any substance of value, but in the mechanism of exchange itself.

The distinction between static and dynamic economics reappeared when the development of the marginal utility system brought out clearly the limitations of that theoretical body. J. B. Clark, whose work resulted in a highly unified marginal utility economics, saw clearly the

limiting conditions under which the system worked and pointed out the factors which made such limitations unreal. But it was J. Schumpeter who, having presented the most abstract outline of static economics, indicated the problems which were not solved by it, and proceeded to solve them within a tentative system of dynamic economics. His writings influenced most the European economists who now express dissatisfaction with conventional economic theory.

This renewed claim for dynamic economics, combined usually with a demonstration of the unsatisfactory character of traditional theory, has been stimulated lately by two developments. One was the study of business cycles, a problem never well incorporated in the body of economic theory. The development of both the inductive and the theoretical scope of this problem brought more and more critical pressure to bear upon the system of theoretical economics. The other factor was the generally expanding study of economic changes at large. This growth of inductive study brought to the fore many problems of change, besides those of the cyclical type, which found neither specific explanation nor principles of elucidation in the body of conventional economic theory. As a result, one observes currently in the United States and in Germany a demand for a system of dynamic economics, a demand stated either explicitly or as one for a reformulation of the concepts of economic theory so as to make them suitable weapons in the inductive study.¹

Thus there is need to clarify the relation of the two bodies of economic generalizations signified by these two names. This is not a matter of stricter definition of concepts. Economists agree that static economics deals with relations and processes under the assumption of uniformity and persistence of either the absolute or relative economic quantities involved. In contrast, dynamic economics deals with relations and processes under the assumption of change in either the absolute or the relative economic quantities. A narrower distinction is suggested by the analogy which Jevons employed so conspicuously, *viz.*, static and dynamic mechanics. In this sense, statics would study the relation of forces at the equilibrium level, while dynamics would deal with the same relations in the changes that lead towards equilibrium. But these two categories of Jevons are both types of static economics under the broader definition above. For our purposes, this broader definition is to be preferred.

But if there is considerable agreement as to the definitions of static and dynamic economics, there is a great deal of confusion as to the actual scope and relation of these two bodies. According to the econo-

¹ See among others, the recent discussion, *Proceedings, American Economic Association*, March, 1930, pp. 30-39.

mists of the past and to most of their modern followers, static economics is a direct stepping stone to the dynamic system, and may be converted into the latter by the introduction of the general element of change. Or, putting it technically, we have first to establish the factors and conditions of economic equilibrium, and only then can we study both the transitory and the secular changes as deviations from that equilibrium. According to other economists, the body of economic theory must be cardinally rebuilt, if dynamic problems are to be discussed efficiently. The method of organization and possibly even the factors to be considered in the economics of change are entirely different from those of traditional economic theory. All attempts to adapt the latter to the study of changes are likely to be intellectual waste. It is to this question of the proper relation between traditional theory and the problems of economic dynamics that the discussion below is devoted.

II

This relation might be gathered from an inspection of the exact function which economic theory, *i.e.*, static theory, has heretofore performed. What has been the scope of the discussions, what has been the precise nature of the analysis and explanations which have constituted theoretical economics? If we answer this question, we shall be in a position to define the probable services which static economics may render in elucidating problems of change, and consequently to define the proper relation between the two disciplines.

Traditional economic theory is primarily an analysis of social phenomena into the individual factors or actions of which they are comprised. Economic theory picks out such social phenomena as prices, wages, interest, capital, wealth, profits, etc., and says: Here are social phenomena which we observe and distinguish because each of them possesses characteristics which do not repeat themselves in the others. What are the factors that determine these social phenomena? In answering this last question static economics looks either to some other social phenomenon or, eventually, to the activities of individuals. Thus, with the marginal utility theory the social phenomenon of prices is explained largely in terms of the individual's valuation of sacrifices and satisfaction. With the labor value theory it is productive efforts of individuals that lie at the base of the price relations and serve to explain the social phenomenon. Wages are explained in terms of the individual's subsistence cost; interest, in terms of reward for abstinence or waiting, and so on. In the more recent variants, welfare economics leads directly from the social phenomena to individual choices and valuations, while price economics in its circle of reasoning from present to past prices emphasizes the individual's activity as the important link.

Two features of this type of explanation should be noted in order to

present a fuller picture of at least the kernel of static economics.

(1) Out of the three groups of factors which actually go to make up any economic-social phenomenon—man, nature, and the state of arts—only man and his activities are given a prominent place in the actual derivation of the social phenomenon. This is a direct consequence of the fact that nature and the state of arts are assumed to be unchanged and inanimate, and that man is the active unit in social phenomena. But with this reference to land and the state of arts as unchanged, even in variegated conditions, static economics becomes essentially: (a) a science of human behavior, which in its generalizations deals with matters so vague as to be susceptible to interpretative distortion and not subject to exact inductive study; (b) a social philosophy, or social metaphysics, since its main task is the decomposition of the complex and often incomprehensible social phenomena into the much more comprehensible terms of the activity of each and every individual. The Robinson Crusoe tales of classical economists, against which some of the more historically minded economists inveighed so much, were naïve because they overlooked the socially conditioned character of the individual's actions; but they represented truly the main function of static economic theory, the reduction of the social phenomenon to the level of the individual.

(2) Further, the use of individual activity as the unit underlying social phenomena was developed in such a way as to show how the different social phenomena, so various on the surface, are directly related. The same active element of individual activity which made a determinate social event possible within the assumed fixity of goods and of the state of arts, also bound together the various social phenomena, such as wages, profits, interest, amount of capital, number of workers, and every other factor in the problem. The great service of the mathematical school particularly consists in bringing out clearly this interdependence of the various social phenomena.

In addition to the enumeration of different social phenomena and the demonstration of their reducibility to the factor of individual activity which binds these phenomena together, static economics deduces or assumes certain features of these phenomena, which it treats as self-evident. Such features are, *e.g.*, the equality of prices, and the mobility of capital and labor. One of the reasons for the intricacy of static economic theory is the reconciliation of a single principle of individual activity with the variety of social phenomena, under conditions in which the constituent factors possess definite traits. Consider the ingenuity which had to be expended in reconciling the labor theory of value with the equality of the rate of profit in the various industries. Or the task of squaring the theory of pleasure and pain with the behavior of prices of reproducible goods.

The decomposition of social phenomena into the individual activities which determine them, the demonstration that the various phenomena are all interconnected through this individual activity, and are marked by persistent characteristics in the variety of their concrete manifestations—this analysis is the kernel, the essence of static economic theory. It is primarily an intellectual construction which shows how the "social" arises from the "individual."

Of course, the treatises that have appeared as books on theoretical economics have not confined themselves solely to this analysis. Without attempting to present an exhaustive summary of the contents of the various "principles," we suggest that the other parts of the discussion, in so far as they constituted theory (*i.e.*, excluding historical introduction, concrete illustrations, etc.), consisted mostly of the application of the schemes worked out. Of these uses to which the schemes of economic statics have been put, three groups may be distinguished.

(1) Estimating the significance of certain "interventionist" changes, as taxes, tariffs, etc. These forms of "conscious" disturbances of the equilibrium might find a definite evaluation in terms of different individuals or groups of individuals, if the theoretical scheme of static economics is conceived as a picture of essential forces and relations. It will be recollected that one of the earliest systems of static economics, the Physiocratic *tableau économique*, had as one of its major purposes the location of the source from which taxes might properly be drawn, and the estimate of the significance of both internal and external barriers of trade. And taking a jump in time, one might say that the primary application of the schemes of mathematical economics has been in connection with the problems of tariffs, taxes, and monopoly prices. Also, one must not forget the rôle which the discussion of probable effects of the repeal of the Corn laws in England played in working out the integrated theoretical system of Ricardian economics.

(2) The problem of ethical estimation. Since the distinguishable social phenomena are expressions of activity of various social groups, and the problem of distribution is a problem of apportionment of the social product, the ethical significance of the analysis of static theory is obvious. For, in the reduction of the social phenomena to the individual or group efforts which go to create it, there lies implicit a judgment as to the ethical rightness of the social order under discussion.¹ The value of this consideration in the Marxian analysis is quite important, even though the analysis is supposed to be a scientific system, *i.e.*, a system oriented only to the stable elements defined as truth by the rules of scientific inquiry. The obvious usefulness of the static analysis

¹ This does not apply to static systems which stay completely on the level of prices (H. J. Davenport or some of the Mathematical School).

from the ethical point of view is stated explicitly by J. B. Clark in his *Distribution of Wealth*.

(3) The problem of changes. This use of static schemes is especially interesting in the present connection, because it constitutes an approach to dynamic economics by a direct complication of the theoretical system heretofore developed. This is usually attempted in the form of postulating the source and some general features of a process of change, and then working out the implication of this change within the static system. The most widely known example of such an attempt is probably the analysis of the long-run economic development undertaken by Ricardo with the help of the Malthusian principle of population. Malthus' law of population growth (and possibly the accumulation of capital as a subordinate) was almost the only general notion of change which Ricardo had explicitly in view, although in the process of reasoning out its consequences he had to pass judgment as to other probable changes to the extent of declaring them subordinate to this one important principle of population growth. But this type of procedure is typical of a number of other attempts. Thus the numerous single factor explanations of business cycles are of the same logical nature: they postulate the existence of the static system on one hand, the influence of one disturbing factor on the other, and "deduce" the cyclical swings as the working out of this one disturbing factor. And, as Ricardo declared all other secular tendencies subordinate to the significance of the growth of population according to the Malthusian law, so these business cycle economists declare all the other factors making for cyclical oscillations subordinate to the one disturbing factor they choose to emphasize. Closer analysis will show, however, that in any such case they depart from some of the cardinal principles of static economics. Just so does Ricardo distort reality when he assumes the movement of only one of the factors in the economic system, without considering that this implies also changes in the relations between the social and individual phenomena assumed by him as fixed.³

It is important to note that exactly these uses of the static scheme in which there was an attempt to apply it to the solution of problems of change, have been among the earliest and most thoroughly discredited. The long-time forecast of Ricardo is one of the glaring examples of failure which are likely to follow any application of the scheme to dynamic problems in the only way in which a static scheme can be applied with definite results, by positing the changes of one and only of one factor. The inadequacies of business cycle explanations, which have resulted from attempts to modify static theory so as to make it agree better with a changing and fluctuating reality, have long since become patent.

³ See the article by the present writer, "Equilibrium Economics and Business Cycle Theory," *Quarterly Journal of Economics*, May, 1930, pp. 381-415.

Whatever may be said of the success of the other uses, that is, attempts to estimate interventionist changes or ethical import, the failure of the attempts to use static economics as the base and stepping stone for treating dynamic problems, indicates that the conventional approach to dynamic economics as a modified static scheme is not likely to be the proper one.

If traditional economic theory is essentially a study of the relations between individual activity and the resulting social phenomena, both of them taken at a given instant of time (or in stable conditions), what is the exact content of dynamic economics? We can say much less about dynamic than about static economics, since the former is not as yet developed. A tentative description, however, may be attempted.

The major preoccupation of dynamic economics is the study of changes in the social phenomena which take place in the course of time. It begins with the social phenomena, and deals only with them, without descending to the level of individual activity, unless it can be established that changes in individual behavior are important factors in the movements of social phenomena in time. The task of dynamic economics is first and foremost that of ascertaining the exact course of social changes, and of arriving, if possible, at some general traits of these changes whether in one and the same social phenomenon in the course of time, or in the relations among the various social phenomena. Of course, there follows the task of accounting for the changes which have occurred. It is at the point of these explanations that dynamic economics may reconsider some of the factors which statics uses to explain how a social phenomenon "arose" or was "determined," and thus it may again consider the element of individual activity. But in dynamic economics, as far as one can see at present, this recourse to explanation in terms of individual activity is not the essence of the theoretical scheme as it is in traditional economic theory, since instead of being the unifying principle, individual activity (human nature) becomes only one of the factors in social change.

The question now arises as to what will be the use in discussions of change of the relations between the individual and society established in static economics? Also, of what use will be the static interconnections among the various groups of social phenomena? We refer here, as we did in the preceding discussion to static economics as it has developed up to the present, since, of course, future static theory can be only surmised rather than discussed.⁴

This question has been raised and answered in a more specific connection in the article referred to above. A restatement of the answer may be given here adjusted to the preceding discussion.

⁴ See, however, below, pp. 435-6.

We saw that static economics picks out only the activity of men as the factor which goes to determine social phenomena, since it is this activity which cumulates into a social phenomenon, even if conditioned by the given state of nature and the technical arts. But in the discussion of changes in time, the state of the arts and of nature, i.e., the conditions in which individual activity develops, do not remain stable, and the study of these changing conditions becomes in itself one of the major tasks of dynamic economics. It is not enough to point out, as is done in static economics, the qualitative variations in land or in the state of technical arts as among the various industries. One has to consider these factors of land and technique in greater detail in order to see whether something in their nature may not in a way determine the course of changes which take place in them. In dynamic economics it is important to grasp clearly the congeries of conditions of activity formed by what might be broadly called the technological elements in the economic system. This means going beyond the mere mention of these factors as is the practice of traditional theory.

This study of the conditioning factors is, however, only supplementary to the discussion of static economics, and it is exactly as such a treatment of the change in the conditioning factors that traditional economists conceive dynamic economics. In such a use the static scheme remains the base of the study of changes, for the rules of human behavior and the interrelations retain their character, and what changes there are take place only in the technical conditions of human activity.

When the question of human behavior arises, we see that we can hardly use the kind of rigid generalizations about individual behavior which static economics evolves in order to make its problem of decomposing the social phenomena a soluble task. For the latter, just as one has to have the other factors (land and state of arts) inert and stable, one has to posit that individual activity is ruled exclusively by motives that make it extremely mobile, allowing it to fill out the space left by the conditioning factors, thus making possible an unequivocal determination of the social phenomena. If one reduces social phenomena to individual activity, one may not allow any significant variations in the motives and types of response of the latter, unless one wants to leave the analytic work incomplete by reducing social phenomena to unconnected units of social groups rather than to the mobile, all-connecting, individual unit (see Cairnes's "non-competing" groups, as an example of an incomplete analysis).

This rigidity which must be attributed to the factor of human behavior in static economics, makes its scheme unsuitable for anyone interested in explaining changes in social phenomena. With its full acceptance the sources of change would have to be looked for in the non-human factors exclusively, since the behavior of the individuals within

society is assumed to be ruled by unchangeable social habits in responding to the stimuli provided by the changing reality.

This stricture relates to the human element as presented by the static scheme. There is still greater objection to the assumption of close interdependence among the various social phenomena—the “closed” character of the static system. It is essential in dynamic theory not only that the absolute economic quantities change, but also that their relations change. Just as it would be impossible to accept a rigidly defined norm of human behavior when one attempts to find out changes made in the pattern of economic behavior by changing environment, just as impossible is it to accept the cardinal assumption of rigid interdependence among social phenomena in a study which will presumably establish changes in this dependence. Such an acceptance would mean that the dynamic movements themselves can take place only in the conditioning constants, a misleading limitation of the scope of dynamic economics.

Thus far we have considered the confining influence of the static scheme when used as a base for the explanation of problems of dynamics. But the discussion assumed tacitly that while decomposing the social phenomena into individual activities, static economics has succeeded in describing and analyzing all important varieties of social phenomena, especially all the important varieties of the human factor, including the habits of the various social groups. Even though in its analysis it is confined to the acceptance of only one type of economic behavior, static theory may have encompassed the variety of social behavior in its qualifications. We assumed that static economics has done a complete and exhaustive job, and pointed out limitations to its use in dynamic theory only on the score of the essential rigidity assumed in its analysis, not on the score of incompleteness.

But static analysis is necessarily incomplete, since it cannot exhaust the varieties of individual behavior of even the most important social groups. This is in a way an unavoidable consequence of the static point of view. The demand for realism requires the consideration of the outstanding, most important differences in the economic-social phenomena, and the explanation of these differences either as differences in human behavior or as differences in conditions, or as both. But the type of exposition and analysis dealt in by static economics is essentially a social philosophy, upon whose propositions there is no definite check. The central problem is to reduce the complex known to the simple familiar. The usual practice is to take that which is known by direct observation only, certain traits of social phenomena that stand out unmistakably and clearly, and light them up as compositions of very familiar, indisputable tendencies in human behavior.

The certainty of incompleteness in such a performance is patent,

since the static character of the problem does not permit exact observation. Any exact observation of reality is necessarily a measure of change, and it is impossible to derive a definite measurement of the static picture of a complex reality.⁵ The analysis of the static scheme will present only a meager list of factors for explaining an exactly observed course of changes. Static economics offers not only a misleading weighting of the factors from the point of view of their importance in dynamic analysis, but a woefully inadequate one.

So far we have discussed present economic theory. But what of the static theory of the future? One hesitates to say anything definite. Static theory may develop a broader conception of economic behavior and may succeed in distinguishing the habits of various socio-economic groups. It is possible that mathematical economics in its current phase will work out various types of equilibration and help to take account of differences in response both to given stimuli and to future prospects. This will mean a considerable enrichment of present theory with empirical data derived from the observation of reality, and may therefore make the static system of greater relevance to the problems of change. But as long as static economics will remain a strictly unified system based upon the concept of equilibrium, and continue to reduce the social phenomenon to units of rigidly defined individual behavior, its analytic part will remain of little use to any system of dynamic economics.

Current criticism of economic theory often takes the form of pointing out its inadequacy as compared with present reality, and it is suggested that a closer observation of actual life and the utilization of additional inductive materials will remedy the situation. It goes without saying that a considerable enrichment of static theory can be attained in this fashion. But it is important to realize that as long as static theory remains a *system* (as distinct from a set of descriptive chapters) centered in the concept of equilibrium, with individual activity as the unit, it will remain necessarily an unsatisfactory explanation of changing reality. It might be made more plausible but it will always remain a scheme of social philosophy or of evaluation of disturbances in a system assumed to be persistent and timeless. For the realistic diversity of social groups and of types of conditions is hardly compatible with the rigidity and analytic value of an equilibrium scheme.

To repeat: it is true that the element of empirical generalization and analysis which is contained in traditional economic theory is of some value for the purpose of explaining problems of change. The singling out of the most important groups of social phenomena, the attempt to show their interconnection, the broad generalization about human behavior and the interaction of individuals, the groups of conditioning

⁵ See discussion below, also in the article quoted above.

factors singled out, all these parts of a static scheme are usually presented, not on the basis of observing a simultaneous state of affairs, but as observations of economic life which extend beyond a moment of time and which are thus likely to yield results of some value. It is true that in the analysis itself the assumption of stability is made, and thus the validity, for practical application, is confined only to each given moment of time. But the various social phenomena picked out for discussion are suggested by a changing reality; and, undoubtedly, the static system contains a number of factors and relations which may be utilized in a dynamic discussion.

But it is important to keep in mind that the static scheme in its entirety, in the essence of its approach, is neither a basis, nor a stepping stone towards a proper discussion of dynamic problems. At best, static economics, under the conditions in which social and individual phenomena may be studied in social life, is a plausible social philosophy. Dynamic economics is on the way to become, and can become a science in which changes are closely observed and precisely measured. Statics may provide some clues for dynamics, but its list of factors is incomplete, its emphasis is misleading, and its essential analytic part, its principle of organization must be discarded if the otherwise difficult problems of change are not to be made more difficult by the dead weight of an unsuitable intellectual factor.⁶

III

The distinction drawn above between static and dynamic economic theory is important by itself, as distinguishing sharply between two types of approach, two different sets of problems, dealing sometimes with different sets of phenomena. But it is still more important for its implications. These implications concern questions about which a great deal of discussion has developed lately, and it is hoped that the distinction drawn may clarify matters somewhat. The first implication

⁶ In a penetrating article in the *Economic Journal* (June, 1930, pp. 192-214) Professor Lionel Robbins distinguishes two concepts of the stationary equilibrium: one in which the constancy of economic quantities is assumed as the condition of equilibrium (J. B. Clark), the other in which such constancy is the result of the equilibrating process (the Classical concept). In distinction from the Clarkian approach, the Classical one permits the discussion of processes tending towards an equilibrium, and therefore a treatment of changes in factors of supply and demand.

This distinction of two types of statics is of little significance for the limited character of static theory in its application to dynamic problems. For even in the Classical approach changes are discussed only under the condition that there is no disturbing factor which would prevent the balancing of forces at a stable equilibrium. The significance of distinguishing these two types of static approach is, as Professor Robbins points out, in the implications for the socio-philosophical problem of the ultimate nature of costs and for the imputational aspects of the problems of wages, rent and profits.

ally pre- concerns the use of the quantitative method;⁷ the second, the seemingly
f affairs, unsatisfactory service of quantitative studies in throwing light on
moment social problems.

e. It is Each theoretical system contains empirical elements drawn into cer-
ade, and tain relations by statements whose general validity is of a higher order
to each than that of the inductive elements themselves. Static economics con-
tained out tains a considerable empirical part, in the form of distinction of groups
ubtly, of phenomena, of generalizations about certain of their features (such
ich may as equality of prices, mobility of capital and labor), and of some em-
pirically derived qualifications of these features. But owing to the
general character of its statements about reality, inductive and espe-
cially quantitative study can have only a limited significance for static
economics.

a its en- Statistical studies have often been characterized, especially by the
stepping adherents of the mathematical school, as complements to economic
t, static theory. If by economic theory we understand the static scheme, then
nomena it can safely be said that statistical study may provide certain starting
dynamic points for the static scheme, certain qualifications of its general state-
a which ments about social phenomena, but it can never be a complement, and
ay pro- very rarely a check. It is obvious that the basic performance of static
ete, its economics, the resolution of a given set of prices into the individual
iple of valuations that underlie them, is impossible as a problem of inductive
ems of quantitative research. The curves of supply and demand that are de-
an un- duced from statistical data are summaries of historical experience, and
are not freed from the dynamic changes, so that it can never be said that
we measure the manifestations of the balance of supply and demand
with which static theory deals. Even if it were possible to isolate ex-
haustively the dynamic elements in a time series, or in any other set of
data, in order to provide either a measurement or a test of the static
scheme, we obviously have to know fairly definitely what the dynamic
elements are. This is a self-evident conclusion from the fact that all our
quantitative data refer to a changing reality, and therefore any pos-
sibility of their use in the static scheme, beyond the use of illustration,
is contingent upon our precise knowledge of dynamic processes. This,
to repeat, does not apply to the purely descriptive or illustrative ma-
terial, which may be gathered from both statistical and other inductive
research, for the purpose of specifying and qualifying the general state-
ment of economic reality with which static economics may start. But
as far as the connections and relations drawn by static economics, i.e.,
as far as the analytic part itself is concerned, quantitative research
can be neither a complement, nor a test, nor a basis of application.

The situation with dynamic economics is almost exactly the opposite.

⁷ See e.g., The round table discussion, *Proceedings of the American Economic Association*, no. 1, March, 1928, pp. 28-46.

While in the conventional economic theory of the past, the theorist generalized about phenomena which were fairly well within the scope of his individual observation, and bore, at least on the surface, all the marks of self-evidence, in the study of changes unaided observation is of minor importance. One can observe in a general fashion the growth of industry, the fluctuations of business conditions; one can sense the existence of broad change: but all too soon it becomes obvious that the projection of a few broad movements which an economic student may observe during his generation is a scanty basis for the study of changes. One may arrive at the theoretical need for dynamic economics by an armchair analysis of the static scheme; for its limitations are obvious in comparison even with a generally observed reality. But in order to make any advance in dynamic economics, it is necessary to measure precisely and as exhaustively as possible the changes about which generalizations are later to be made.

This task of establishing general tendencies, a task which has been taken so easily in traditional theory for the reason that only the obvious was accepted as the object of explanations, is much more formidable in dynamic economics. The latter had to wait until the methods of establishing the stable and recurring elements in the manifold variety of everyday facts have developed sufficiently to yield that inductive material with which the dynamic economic theory has to deal. It is in this aspect that the importance of the quantitative method in dynamic economics comes out most clearly. For were we deprived of the possibility of measuring the changes involved, dynamic economics would be reduced to a search for the laws of history similar to those of which the early Historical School sought. The study of qualitative changes, important as it is, can deal only with the broad tendencies and clearly distinguished fields of activity. It can never measure the exact degree of change, and thus bars any attempts at establishing general movements within fields where there is a definite degree of homogeneity, and where therefore the promise of valid generalizations is the greatest.

The quantitative approach therefore not only enriches the body of inductive knowledge with which dynamic economics has to start, but it also opens up a promise of a preliminary transformation of the variegated stuff of changing reality into more or less established inductive generalizations. No wonder, therefore, that the development of dynamic economics had to wait upon the creation of a body of analytic methods for dealing with quantitative data, and that in distinction from static economics, it seems to lay an overwhelming emphasis upon the advantages of statistical research.

In the discussion that has developed about the quantitative method, the adherents of the classical or mathematical approach are right in so

far as they dwell upon the limited significance of the method in the present stage of development of economic theory. It is true that inductive knowledge counts in the broad generalizations with which static economics begins and especially in the qualifications of the validity of any conclusions that are arrived at in static economics. But to the essential function of the latter, that of showing the individual factors underlying social phenomena, and the interrelations which the activity of individuals driven by certain motives imposes upon the various fields of economic activity, quantitative research is of little relevance. If one deals with a social philosophy, one may derive from precisely measured facts the starting points and a notion as to the limited character of the conclusions, in so far as an application to reality is concerned. But one should not expect a system of social philosophy to base itself upon the precise results of specific inductive statements. It is in dynamic economics that the latter are important, for there they are a significant form of observed reality.

This throws light upon the other implication—the unsatisfactory character of quantitative method from the point of view of conventional economic theory. It is clear that to the economists of the past century and to most of the economists of today, the static scheme of economics provides a tool which no quantitative research can replace. The system of social philosophy which is built up in the form of a theoretical economic system answers questions as to the probable effect of interventionist changes, allows the discussion of ethical implications, permits the passing of judgment upon the desirability of this or the other public measure. It is true that the basis of these judgments is precarious, for the simple reason that they concern proposed changes in real life, and that the theoretical scheme upon which such judgments are based is no more exhaustive of real forces than many a social philosophy of the past. But with all the limitations of validity, the possibility of giving definite answers is there. In connection with any practical question, the professor of a scheme of static economics, is capable of building up *ad hoc* the necessary amount of specific inductive data, and by applying his laws of interconnections among phenomena and of response of individual activity to certain problems can obtain definite results. In his economic theory he has a complete system capable of providing definite answers.

But the satisfaction which may follow upon this use of a theoretical scheme, be it of awarding the social order a verdict of moral rectitude, or of telling that a definite tax will be shifted in a certain way, or of declaring that the burden of foreign debts is borne in such and such a way, this satisfaction is so far lacking in studies produced at present by the application of quantitative methods. Dynamic economics is as yet in the stage in which it is more important to establish facts, and to

bring out broad tendencies underlying them, than to attempt to arrive at definite persistent relations which might be used for such purposes as estimating the future, establishing social implications, etc. So far quantitative research is mostly the process of arriving at inductive inferences, and the body of the theoretical system of dynamic economics is being built up only bit by bit. Within certain fields there has already accumulated a sufficient body of generalizations to make possible tentative applications. But even in the oldest of them, the field of business cycles, the body of organized inductive materials is very far from sufficient. In other fields accumulation has hardly begun.

The theoretical economists of today are therefore right when they attack the quantitative approach, both in its relevance to static theory and in reference to its doubtful fruitfulness. It is an unsatisfactory approach if one wants to have a basis, unreal as it may be, for providing definite answers to questions of social desirability or social effects of a certain change. In such a criticism, however, two considerations are overlooked. (1) In preparing the ground for solving practical problems, the quantitative method cannot be neglected. Many an economist would profit by knowing the different factors at play, the various groups of changes already marked out by quantitative investigators to look for in any analysis of original data. (2) The potential fruitfulness of the method will materialize only after the body of inductive data has been accumulated and analyzed, after the ground is prepared for whatever systematic construction is to take place. It is in the future that the system of dynamic economics will be evolved by a concerted effort of both the inductive workers and of the theorists, probably combined in one and the same group of students.

In conclusion one may be permitted a glance into this future. There are already some attempts to build the foundation of dynamic economics by distinguishing groups of social phenomena in their varying propensities towards change. The work accomplished by business cycle investigators has already served to enrich the knowledge of the type of reality of which the static economist speaks *i.e.*, the broad groups of social phenomena. We have become aware that the conventional references to economic behavior are not only incomplete, that the division between land, capital, wages, etc., is not only a scanty list of economic groups at action, but actually misleading in tempting one to generalize about them. Already we begin to realize that attempts to make the static scheme in its mathematical form more realistic by certain transformations of data are likely to be unsuccessful at present, because the variables are too numerous and too little known to be eliminated. In other words, the studies in dynamic economics, whether quantitative or qualitative (like the study of overhead costs), bear directly upon the

validity of the static scheme. They begin to fill out the ground which static theory once preëmpted.

One would like to hope that this process of developing a tested theory of social evolution will proceed at a faster tempo. One may hope also for a clearer realization that in so far as static economics is not merely a description of a typical economic system, but a body of interrelated factors, it is a species of social philosophy, whose conclusions are approximate judgments, most of them colored by certain preconceptions; that while it includes an element of empirical generalization, that element is so broad as to make it dangerous for practical application. Finally, one may hope that in dynamic economics, the theory of change, will gradually be evolved a firm basis for judgments about the stable and unstable elements of our economic system.

It seems safe to say that while this development of dynamic economics will restrict the validity and the field of static economics, the restriction will be legitimate. Moreover, the body of static economics proper will be immeasurably enriched. The description of economic behavior will not confine itself to the rigidities of the *homo oeconomicus*; the types of interrelations will not be merely rigid relations of interdependence. The static scheme may be lost as a system, but it will gain in wisdom as a social philosophy.

SIMON KUZNETS

National Bureau of Economic Research

UNEMPLOYMENT AND TECHNICAL PROGRESS IN COMMERCIAL PRINTING

Widespread mechanization including automatic press feeding has taken place in the commercial printing pressroom since 1912. Has this progress caused unemployment among pressroom employees? Investigation in representative plants in New York City reveals less man displacement than was anticipated. While this may be partly explained by the impossibility of allocating all dislodged men owing to high labor turnover and absence of employment records, a major explanation is that the industry is growing and the transfer of men from old to new techniques is frequent shop practice. However, the semi-skilled press assistants or "feeders" are definitely losing ground while relative demand for the highly skilled pressmen increases.

The disease of unemployment thrives. It has become more baffling than ever as symptoms have developed with which technical progress appears to be associated—a phenomenon which is being called "technological unemployment."

Several factors have made commercial printing of special importance as a laboratory for analysis of these symptoms. This branch of the printing industry embraces the printing and publication of books and periodicals,¹ mail order catalogues and telephone books, together with job printing, which covers all of those miscellaneous forms such as sheets and pamphlets used in the conduct of business and trade as well as tags, labels, stationery and advertisement lures for consumer circulation. Commercial printing does not include the printing and publishing of newspapers nor of music, nor any publishing conducted as a separate enterprise. Outside its scope also is practically all book-binding, blank-book making, wood, steel and copper engraving, photo-engraving, stereotyping, electrotyping and lithographing.

Few manufacturing industries make greater relative use of machinery than does printing. The federal census reports show that this industry employs one-twentieth of all persons engaged in American manufacture and pays one-sixteenth of all manufacturing wages and salaries. Within the industry the commercial branch employs more men and pays more wages than any of the other groups. While 63 per cent of the total value of products in 1927 came from the newspaper and periodical establishments and 36 per cent from commercial plants, 54 per cent of the total wage earners and 51 per cent of the wages paid were in commercial printing.

Moreover, commercial printing has been cited repeatedly as a center in which "technological unemployment" is taking place to an alarming

¹ While the census reports include publishing companies by whom no printing is done, they omit periodical printing when produced in plants which print newspapers as well. In these two ways the census classification differs from that part of the industry whose technical changes are discussed in the following pages. It is impossible to state accurately to what extent these two differences would tend to cancel each other were the respective figures available.

degree. New York City unions point to their out-of-work rooms with increasing complaint that new high speed machinery is taking their work away. Most of the protests come from the pressroom unions—the printing pressmen and press assistants, who fear progressive displacement by new machines akin to that felt by the typesetters from the introduction of the linotype in the composing room some four decades ago. Of these two groups, the press assistants, generically known as feeders, regard themselves in sharpest danger because of the rapid shift which is being made from hand to automatic feeding of presses. The conflict is persistent between employers and the union concerning the complement of men to be employed on each press.

The present inquiry has, therefore, been focused upon the commercial printing pressroom, with special attention to the status of the press assistants. The ultimate objective of this study has been to trace displacement of men by improved techniques and to discover how serious the results are as the continuity of their employment is interrupted. The investigation has taken two directions: the one, to follow and examine the extent and exact nature of the advance of mechanization; the other, to isolate those cases of unemployment directly consequent upon mechanization and to interview the individuals concerned.

The wide variation of the nature and quality of commercial printing renders complex any adequate analysis of equipment in use. What else could be expected, with a range in production from a handful of business cards or dance menus to a two million edition magazine carrying illustrations in four colors? Equipment ranges from the smallest 8" x 12" hand fed platen press which turns out six or eight hundred impressions an hour to the rotary web press which simultaneously prints, folds, stitches and covers 3,000 or 4,000 copies of from 32 to 128 pages an hour. The work varies in size of type and sheet, in length of run, in quality of printing, paper and ink, in the number of colors and the number of half-tones used.

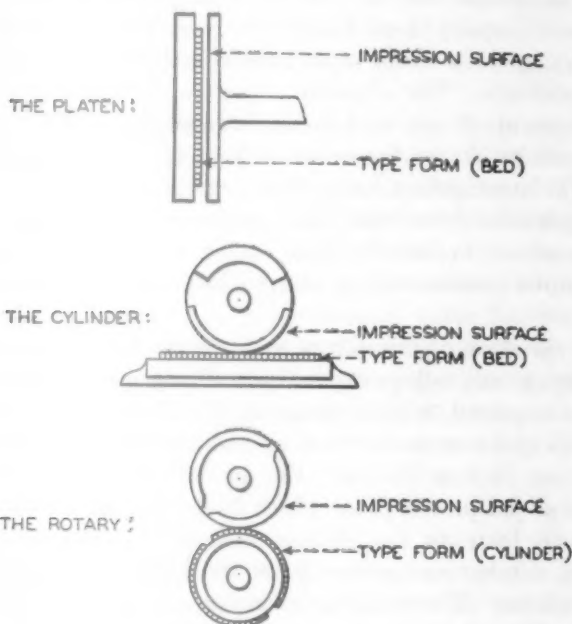
For these reasons, an analysis of mechanization must not fail to observe those technical changes which cause job or process displacement but which do not displace men. When new machines or processes replace old, the human effects may be those of transfer of the men to the new jobs rather than their separation from work. Likewise the unemployment analysis requires constant care in winnowing from the *bona fide* cases of displacement by technical change those unemployed because of old age or inefficiency, business depression, plant migration or mergers.

Presentation of the results of these two attacks upon the problem has had to be sharply abridged in the following pages. Nevertheless

it seemed necessary to include them both. The very nature of a study of so called "technological unemployment" (especially if the process is gradual as in printing rather than cataclysmic as in motion picture music) requires thoroughgoing review of the changes involved as well as of the unemployment which ensues. Otherwise there is danger of adopting a phrase which is too inclusive to have scientific value.

Printing Presses in Use Today

Reduced to their elements the presses manufactured for commercial printing fall into three groups:



Slightly less simple but much more precise is the grouping as follows:

- (1) Platen presses (all sizes, from 8" x 12" to 14" x 22")
- (2) Cylinder presses
 - (a) Job automatic cylinder (sizes from 13" x 20" to 17" x 22")
 - (b) Small flat-bed cylinder (sizes over 22" and including 42")
 - (c) Large flat-bed cylinder (sizes over 42")
 - (d) Two-color and perfecting cylinder (all sizes, from 40" x 53" to 52" x 70")
- (3) Rotary presses (sub-groupings omitted)

Platen Presses. Platen presses occupy a distinctive position in commercial printing. Their mechanical ancestors of the fifteenth century yielded the first pages printed from movable type. Modern platen

presses, the simplest and least expensive of present day printing equipment, have been on the market nearly fifty years. They have been fashioned by the thousands. The Ford cars of the printing world, these little presses are sold, not by exclusive dealers, but by every printers' supply office in the country. Their operation is simple. Both the type bed and the surface which receives the impression are flat; mechanical power brings the two surfaces together, and the sheet is printed in a single stroke.

Cylinder Presses. In the cylinder press, the sheet surface which is exposed to the type form for printing is cylindrical instead of flat. The sheet receives the impression, not instantaneously as in the platen, but by being revolved over and with the reciprocating flat type-bed. This bed, horizontal in position, passes under the revolving cylinder to give the impression. The printed sheet then travels along to the delivery table at the end of the press. At the same time the cylinder, slightly elevated, revolves back to receive the next sheet and the flat-bed withdraws in the opposite direction for another distribution of ink. The cylinder makes two revolutions to every single forward and reverse movement of the bed.

The greater weight of the cylinder presses together with the continuous movement of the impression cylinder and the form bed, enables higher speed to be secured than on the platens. Cylinder presses, during the half century of modern printing, have been the more dignified mechanisms of the commercial pressroom. As platen presses have turned out the small work, cylinders have printed the larger sheets and filled the larger orders.

Job automatic cylinder presses bid fair to be the "Model A cars" in the industry. First seen on the market in the first year of the World War, they have made a spectacular sally upon the pressroom, crowding out platens on the one hand and the larger cylinders on the other. These little presses are not spoken of as cylinders even though they operate on the cylinder principle. They stand by themselves, really, and are called "job automatics" among printers. Unlike all other presses,² except the web rotaries, these presses, by their own mechanism, feed the sheets of paper into printing position. With this asset, coupled with those of simplicity and high speed, they embody one of the two outstanding technical changes in recent commercial printing. (The other change is that from hand to automatic feeding of presses about to be described.)

Two-color and perfecting cylinder presses are not especially new—

²Since the advent of these "job automatics," other high speed self-feeding machines have entered the next larger group of small cylinder presses. There is also, now, a new self-feeding platen press which has made a promising début.

they are some twenty years old—but they are of particular interest among cylinder presses because of their greater productivity. By the use of a transfer cylinder they accomplish two processes in one. The two-color press requires but one run of the sheet through the press to print two colors on one side, whereas the ordinary “single” cylinder requires two. The perfecting press prints both sides of the sheet in one running, while the single cylinder prints but one side in each running. In this age demanding color and speed these presses, though expensive, have been increasingly adopted by printers.

Rotary Presses. Rotary presses comprise the third large group of machines used in commercial printing. These are cylinder presses in that they print on a cylindrical surface. But here the type, also, is curved into cylindrical form. The resulting continuous motion enables these heavy and highly complex machines to print hundreds and even thousands of feet of paper per minute. Moreover, they perform many processes which formerly belonged in the bindery, such as folding, stitching, and pasting covers on the freshly printed sheets. On the one hand, they save an enormous amount of labor; on the other, they have increased the volume of printing immeasurably. It is these presses which have made possible the large circulation of magazines and the modern mail order catalogue.

Rotary presses stand in a great class by themselves. They are concentrated in a relatively small number of printing establishments which do large edition work. Since this is so, it has seemed best, in meeting the severe space limitations of this paper, to forego further discussion of these presses together with the work of large printing plants. Accordingly, a straight-line procedure will be followed which will more clearly show mechanization and its effects upon employment, as these have been traced in the more typical medium-sized plants of the country.

New Methods in Press Feeding

The other of the two great technical changes in commercial printing is the replacement of the old hand feed board by an attachment for automatic feeding.

So universal has hand feeding been that, even up to the year 1913, less than 4 per cent of the over 60,000 commercial presses were automatically fed. This was 32 years after the introduction of modern presses, and 15 years after automatic feeders appeared on the market. Since January, 1913, however, the advance of the automatic feeding attachment and of the self-feeding job and small cylinder presses has been so rapid that, by 1929, 44,000 out of 64,000 total presses sold were automatically fed. This means that on two-thirds of all presses installed during the 16 years up to 1929 (not including ro-

aries), the old feed board with its attendant hand feeder had disappeared.³

Until the turn of the present century every press claimed its human feeder as a part of itself. Standing at the feed board at the back of the press, the feeder pushed one by one some 8,000 sheets of paper a day into the maw of the press. By some one of two or three methods, he skillfully separated the topmost sheet from the pile on the board, and passed it along to the metal "guides." From the guides it was carried by motor power to receive the impression, then delivered in a printed pile to the board at the foot of the machine.⁴

The mechanical feeder, in dextrous manœuvre, imitates the motions of the manual feeder whom it replaces. The topmost sheet of paper must be separated from the pile and moved along to the guides of the press for printing. This is accomplished mechanically either by a combing of the top sheet, causing a number of sheets to be fanned out one beyond the other in easy position to be fed into the press, or by the use of suction fingers which, when dropped to the surface of the pile, lift the top sheet to cause its slight suspension in air. From this position the sheet is quickly passed along to the guides of the press. The automatic feeder accelerates the speed of printing some 20 per cent—to 1,200 to 1,300 impressions per hour as compared with some 1,000 by hand. The extremely repetitious character of the process, together with the need for precision, seems to invite the machine to replace the man.

In fact, automatic feeding has altered the nature of and increased the demand for commercial printing. Color work has received its impetus from the mechanical feeder. The perfect register required for color printing, where from 2 to 18 impressions are imposed one upon the other, is often too exacting if not impossible to be accomplished at high speed by hand. As for increased demand, the greater speed of printing at relatively lower cost, owing both to improved press and to automatic feeder, has deepened as well as widened the market for printed matter—door to door hand bills, blotters, personal letterheads, and more and more books and magazines. Inexorably has the competitive unit price received by the printer shifted from its hand feeding cost base to the lower unit cost of faster production.

³Two qualifications are necessary here: (1) It is not uncommon for a feeding attachment to be swung back from the press to admit hand feeding. Very small orders, some qualities of paper and certain atmospheric conditions make hand feeding preferable. (2) Some of the feeding attachments sold after 1913 (quite separate mechanisms from the presses) went to equip presses installed prior to 1913.

⁴With the platen press the feeder must extract the printed sheet with his left hand while he inserts with the right hand a sheet to be printed. The cylinder press delivers the printed sheet mechanically.

The Advance of Country-Wide Mechanization

Advance of mechanization has been traced through the sales of printing machinery. Collection of the data was dependent upon securing the coöperation of manufacturers of printing presses and of automatic feeding machines. Of the thirteen present manufacturers, twelve contributed practically all data requested.⁵

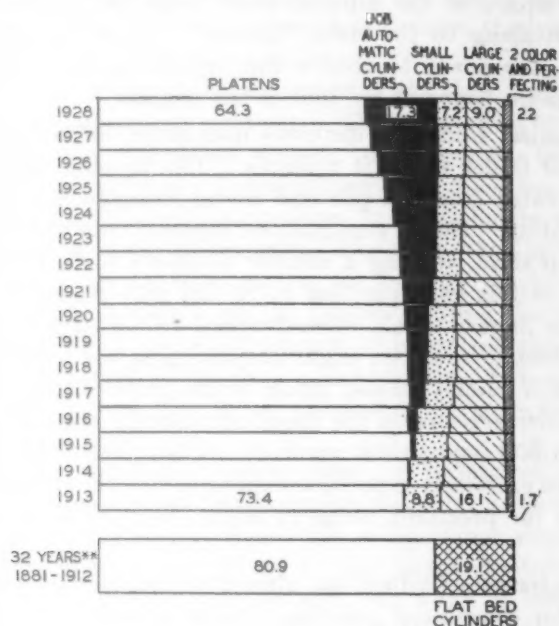


CHART I. THE PERCENTAGE WHICH EACH GROUP OF PRESSES IS TO THE TOTAL OF PLATENS AND FLAT-BED CYLINDERS, CUMULATIVELY BY YEARS, 1913-28*

* Pre-1913 data do not enter into 1913-28 percentages.

** Sales records of machines by years prior to 1913 were not available.

The reports of these companies make it clear that commercial printing, in both volume and technique, has made important gains during the 16 years for which data have been gathered. The number of presses sold in the United States during this time is greater than the number sold during the entire 32 years before—since 1880. The year 1881 marks the advent of the now semi-modern press, some 61,000 of which were installed prior to 1913. From 1913 to 1929, more than

⁵ This was one of the knottiest problems of the study owing to the confidential nature of the material and the detailed information requested. In no instance were the records available in the form necessary for this investigation. Weeks of work were generously given by each of several manufacturers for the culling of information submitted to the writer.

4,000 of these and the newer presses were installed. This is an average of 4,018 presses per year as against 1,916 per year in the earlier period. The decline of older and the rise of newer techniques are clearly evident in an examination of these press sales. While 4 per cent more presses were sold during the recent 16-year period than during the previous 32 years, this increase includes a 17 per cent drop in the platens and a rise of but 1.2 per cent in the cylinders (exclusive of the new high

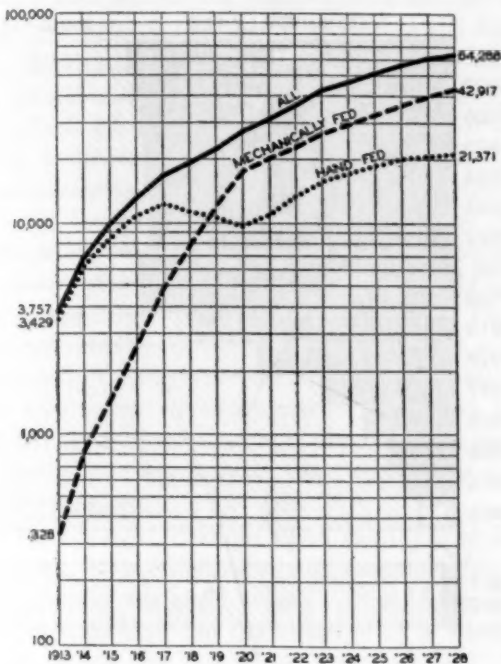


CHART II. GROWTH CURVES SHOWING THE NUMBERS OF PRESSES*

speed job automatics). The job automatic cylinders, introduced in 1914, themselves comprise more than one-sixth of all presses sold since 1913. When it is realized that this meteoric rise in the sale of job automatic cylinder presses consisted, practically speaking, of one single model as late as 1922 when it was joined by two others, the importance of these fast, self-feeding presses can be better appreciated.

The new high speed presses in the small cylinder group made their appearance even more recently. The first of these came on the market in 1922 and the last not until 1928. Thus the full force of the introduction of these machines is only now being felt. The labor saving two-color and perfecting presses also show an increasing popularity with printers.

Automatic feeding has advanced even more rapidly, including as it does the new self-feeding presses as well as the mechanical attachments which equip hand fed machines. The accompanying diagrams picture what has occurred. Up to 1913 only 4 per cent of all presses were automatically fed; 96 per cent were hand fed. By 1929, 67 per cent were fed automatically and 33 per cent were fed by hand.

Charts II and III show the total cumulative platen and flat-bed

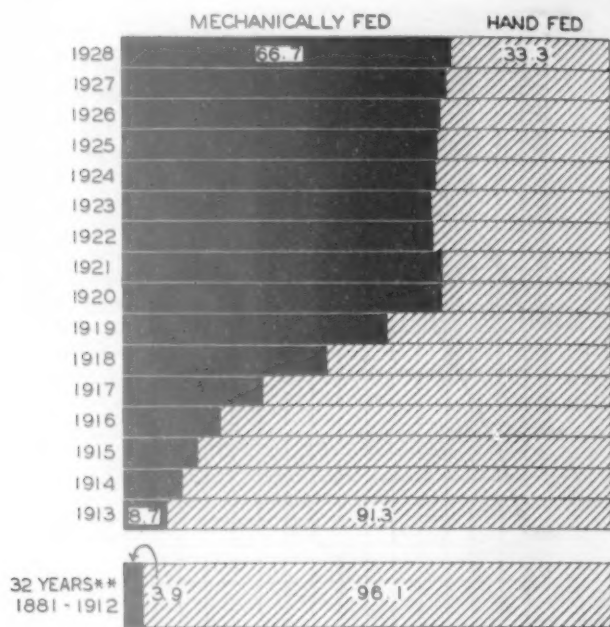


CHART III. PERCENTAGES OF PRESSES WHICH WERE HAND AND MECHANICALLY FED*

* Pre-1913 data do not enter into the 1913-28 percentages.

** Sales records of machines by years prior to 1913 were not available.

cylinder press installations in the United States, 1913-28 inclusive, with the numbers and percentages which were hand and mechanically fed.

It is not surprising to discover that this remaining 33 per cent of hand feeding refers almost entirely to platen and large cylinder presses. Since they are older models, these are the machines which tend to be used for the emergency and the short-run printing which does not invite investment in automatic attachments. Some employment effects of this use of the older presses came to light in New York City when the calls from employing printers to the union out-of-work rooms for temporary men were analyzed. A large proportion of these calls were for hand feeders. The work was more often for one day, or one night,

er two, or three, after which the feeder's name appeared again at the bottom of the list of those waiting for calls. Does this practice suggest that the labor reserve in commercial printing tends to be made up of old-fashioned workers?

In the light of this question it is noteworthy that the marked recession in hand feeding during the war scarcity of labor was caused entirely by the change in feeding technique on the older presses. The change was much sharper for the platens than for the large cylinders, but it was these two groups together that caused the dip in the growth curve seen for all hand fed presses from 1917 to 1920 in Chart II. The short-run printing which platens produce has always invited hand feeding. Prior to 1913 platen presses were almost 100 per cent hand fed, whereas the large cylinders which took the larger jobs were then 17 per cent mechanically fed. But necessity demanded more mechanical feeding during the war. The market was agape for speed equipment. Only one satisfactory self-feeding press appeared in 1914. Its popularity was instantaneous. Together mechanically equipped platens and the new high speed models advanced into 1920. Then came general industrial depression with its plethora of labor and a tendency to relinquish mechanically feeding the older presses. Finally, 1922 brought recruits in the new school of small presses which, by 1928, comprised more than 50 per cent of all mechanically fed machines acquired that year. Color and perfecting presses were also being rapidly equipped for automatic feeding.

The effect of these swift changes upon employment has been the object of this inquiry, brought within limits necessary for scientific treatment and discussed in the next pages. In passing, it is possible to show a very rough picture for the country as a whole by comparing

TABLE I

WAGE EARNERS, PRESSES AND PRODUCTIVITY IN THE UNITED STATES, 1914 AND 1927*

Year	Number wage earners	Value added by manufacture	Presses sold up to and including year given	Capacity in square inches, of presses sold up to and including year given
1914	113,121	\$214,961,905	68,362	33,207,000,000
1927	141,278	446,853,963	121,525	65,664,000,000
Per cent increase	24.9	107.9	77.8	97.7

* The census does not give the number of pressroom employees separately. Value added has been corrected for the dollar value change by applying index numbers of wholesale prices of the United States Bureau of Labor Statistics. Presses sold are as reported to the writer by the manufacturers. Square inch capacity was calculated by a carefully evolved formula stated simply as follows: sheet size of press \times the number of presses \times the number of impressions per hour. (The color and perfecting press figure then had to be multiplied by two.)

reports of the census with these sales of presses and with press capacity production. This table shows that the total number of wage earners employed in book and job printing in 1927 had increased one-fourth over 1914; value added by manufacture had increased more than 100 per cent during the same period. The number of commercial printing presses had increased more than three-fourths, while their square inch capacity was 98 per cent greater. These changes seem to indicate that while per capita productivity was, in 1927, some three-fifths greater than in 1914, a larger demand for printing could only be met by substantial increase in the number of men employed as well.

While the roughness of these calculations must be emphasized, closer analysis of the New York City scene indicates beyond a doubt that they point in the direction which commercial printing has taken so far, in regard to pressroom employment: an increase in production and in productivity per man accompanied also by an increase in the number of men employed.

In a summary statement of the advance in country-wide mechanization in commercial printing, two main points stand out:

- (1) Judged by sales of press equipment, commercial printing shows rapid and fairly steady progress in both volume and technique since 1912.
- (2) That the newer printing techniques are replacing the older as the demand for printing increases is everywhere evident. The job automatic cylinder, the small cylinder and the two-color and perfecting presses gain steadily in numbers and in the proportions which are automatically fed, while the demand for platen and large cylinder presses is gradually falling off, and these tend to remain hand fed.

Effects of Mechanization upon Employment in New York City

New York City was selected for a closer scrutiny of mechanization than has been possible for the country as a whole, and for a study of resulting unemployment. For the analysis of unemployment a much more critical observation of shop practice in representative plants was essential. Consequently, three groups of printing establishments were surveyed with respect to equipment and employment of men: 44 medium-sized shops, of which 36 were union and 8 were non-union, employing from 5 to 20 men in their pressrooms, and 9 large union plants which employed more than 20 men at the presses. These 53 plants were considered typical of the commercial printing business in New York City except for the hundreds of one- and two-man shops. Findings particularly in the 36 union plants will be discussed in the present paper, showing what technical changes took place and how these changes affected employment—whether they displaced men and what became of

the men displaced, in so far as this information could be obtained with accuracy. But first of all, to what extent have commercial printers in New York City adopted improved machinery?

Mechanization. As was anticipated, technical change in New York City, the country's largest printing center, reflects the general trend for the United States as a whole, but in exaggerated form. Here, the new presses have made more rapid advance and the older ones show more pronounced relative decline. Unfortunately, platen press figures

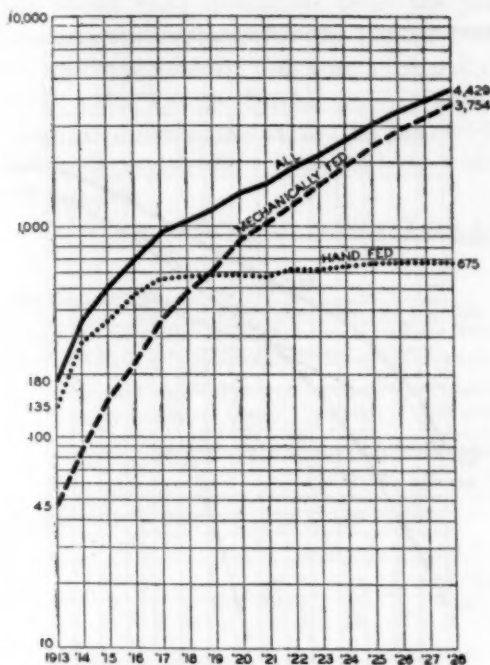


CHART IV. NEW YORK CITY

were not available for New York City alone, but, inasmuch as they moved along with the large cylinders in a roughly comparable way for the whole United States, it is safe to suppose similar resemblance here. As a matter of fact they probably fell off considerably more than the large cylinders, for platens have been replaced by high speed models more generally in New York than elsewhere.

Charts IV and V show the total cumulative flat-bed cylinder press installations in New York City and in the United States as a whole, 1913-28 inclusive with the numbers which were hand and mechanically fed.

The hand feeding process in New York, for all flat-bed cylinder presses combined, appears to have come practically to a standstill,

while for the color and perfecting presses it has positively declined since 1920. Charts IV and V show the flattening growth curves for hand feeding cylinder presses in New York City for the 16-year period as compared with the slow upward trend for the country as a whole.

These cumulative diagrams do not show the extreme changes in printing techniques which are emphasized by first and last year comparisons with the 16-year average, but they give a more nearly accurate picture of the printing scene. Presses purchased each year

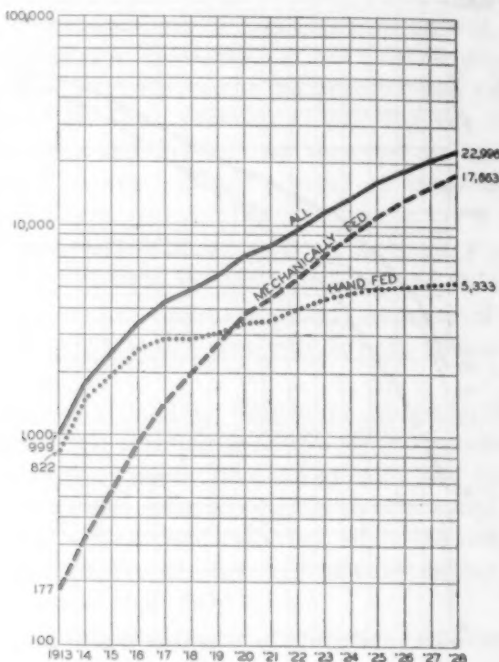


CHART V. UNITED STATES

must be thought of as being added to those already in use, because of the long life of printing machinery—from 15 to 20 years. The 16-year cumulative period represents what might be called a press generation. But, unfortunately, like a generation of people, a generation of presses is not a clear-cut thing. There is premature death and extra long life. Moreover, we have no census of printing press population. Sample inquiry yields the fact that the first press sold by one important manufacturer in 1882 is still printing its weekly sheet in Syracuse, New York. Also, one large New York City plant reports that 90 per cent of its presses were purchased prior to 1913. But these instances appear to be exceptions. It is probably safe to estimate that at least

September
decline
curves for
period
whole.
anges in
ear com
arly ac
ch year

use of
6-year
ation.
resses
g life
ample
manu-
New
cent
ances
less

three-fourths of the pressroom equipment now in operation has been acquired since 1912. The number of presses which have been discarded and the number installed before 1913 which are still running may cancel each other to a large degree. This would bring further accuracy to the present picture. At any rate it seems safe to think of installations of presses since 1912 as roughly indicating presses in use at the present time. When we turn to Table II which contrasts press accretions in 1928 with those of 1913—the last and first years⁶ of the 16-year series, and shows their deviations from the yearly average, we may see our previous observations for the United States borne out for New York City, and emphasized. Job automatic cylinder, mechanically fed small cylinder, color and perfecting presses advanced in 1928 far beyond their respective averages for the 16 years—from 100 to over 200 per cent. The large cylinders (and platens, were they shown) are actually being displaced.

Production of commercial printing in New York City has increased

TABLE II

PRESS INSTALLATIONS, HAND AND MECHANICALLY FED, BY GROUPS, 1913 AND 1928, WITH DEVIATIONS FROM THE 16-YEAR AVERAGE¹—NEW YORK CITY

Presses	Installations in 1913	Installations in 1928	Per cent change 1928 over 1913	Average installations per year 1913-28	1913 deviation from average		1928 deviation from average	
					Num-ber	Per-cent	Num-ber	Per-cent
Job automatic cylinders	0	320	— ²	159	—	—	+161	+101.2
Small cylinders								
Hand fed	32	11	— 65.6	12	+20	+166.7	— 1	— 8.3
Mechanically fed	2	87	+4,250.0	28	—26	— 92.8	+ 59	+210.7
Total	34	98	+ 188.2	40	— 6	— 15.0	+ 58	+145.0
Large cylinders								
Hand fed	85	—10	— 101.2	26	+59	+226.9	— 36	—138.5
Mechanically fed	38	40	+ 5.3	40	— 2	— 5.0	0	0
Total	123	30	— 83.7	66	+57	+ 86.4	— 36	— 54.5
Two-color and perfecting flat-bed cylinders								
Hand fed	18	— 5	— 127.8	4	+14	+350.0	— 9	—225.0
Mechanically fed	5	27	+ 440.0	18	—13	— 72.2	+ 9	+ 50.0
Total	23	22	— 4.3	22	+ 1	+ 4.5	0	0

¹ Presses sold during the 16-year period (1913-28) roughly represent presses in use in 1929. (See discussion of the life of the printing press above.) For this reason the average annual installations for these years gives a basis for observing the shifts in popularity of the different presses as seen by comparing the first and last year deviations from the average for the entire period.

² Fifteen years only, beginning 1914.

³ 1913 and 1928 were fairly normal years in printing. They can probably be compared with as much justification as single year figures can ever demand.

just 1 per cent more than for the United States as a whole. The corrected value added by manufacture increased from \$51,802,516 in 1914 to \$108,219,048 in 1927, or 108.9 per cent. The number of wage earners in New York City rose but 15.3 per cent, whereas the rise for the country was 24.9 per cent. Total press accretions for New York cannot be given for comparison with those in the United States, but, in the 53 plants over the five-year period surveyed, presses increased 15.6 per cent and pressroom workers 17.2 per cent.

These data emphasize two points: first, that the increase in the volume of production accompanied by the smaller increase in the number of workers in New York City as compared with the United States seems to indicate greater technical progress in New York pressrooms, as the growth charts have already shown. (Doubtless they also reflect some progress in the bindery. Little change has taken place in the composing room during these years.) The other notable point is that there was an actual increase in men employed; and, if it is true that the 53 plants are representative of New York City, press workers increased more than presses. The nature of commercial printing probably accounts for this increase in demand for men in spite of improvements in press equipment. The growing volume of short-run orders which require more making ready, together with more color and half-tone illustrations, even though improved techniques are in use, requires a great deal of pressroom labor.

What the Survey Discloses

Analysis of the 36-plant study in New York City focuses our lens more closely upon the displacement problem in hand. A census of presses, by kinds and exact sizes, and of men employed to operate them, was taken for the winter of 1923-24 and the winter of 1928-29.¹

¹ These were considered to be representative of the medium sized union plants in New York City as described on page 452 above. The census was taken in the spring of 1929 with the use of prepared schedules of inquiry which were filled out by a special investigator only after satisfaction that the data were correct. Checking the accuracy of the data was of major importance for the reason that no shop could turn to employment records for five years past, other than payroll records which are kept to furnish income tax information. In a substantial number of shops total press equipment on the floor in 1924 was not recorded.

The information collected in each plant consisted of the following:

(1) Total press equipment on the floor in the winter of 1923-24, giving size and make of each press, whether hand or mechanically fed, and the style of the mechanical feeder.

(2) The number of pressmen and the number of press assistants regularly employed at the time named, specifying whether the assistants were hand feeders or operators of mechanical feeders.

(3) The same data for the winter of 1928-29.

(4) Exact description of equipment discarded during the 5-year period, and of equipment installed, giving the dates of these changes.

Changes which took place during the 5-year period were recorded. The findings show that these plants grew not only in equipment and number of press workers as the approximate figures for the United States also showed, but, more unexpectedly and as just shown for the survey as a whole, the number of men increased slightly more than the number of presses. In 1924 the average equipment per plant was 9.9 presses and 9.9 men, whereas in 1929 the averages were 11.6 presses and 11.7 men. An average of 99.2 men to 100 presses were employed in 1924, and 100.7 men to 100 presses in 1929. The data are shown in Table III.

TABLE III

PRESS EQUIPMENT AND MEN EMPLOYED IN 36 UNION PLANTS IN NEW YORK CITY IN THE WINTER OF 1923-24 AND IN THE WINTER OF 1928-29

Presses and men	Year		Per cent change
	1923-24	1928-29	
Total presses.....	358	419	+17.0
Hand fed.....	209	183	-13.9
Automatically fed.....	149	236	+60.4
Percentage hand fed to total.....	58.3	43.6	-25.2
Total men employed.....	355	422	+19.0
Pressmen.....	144	188	+30.6
Assistants.....	211	234	+10.9
Hand feeders.....	151	129	-14.6
Operators.....	60	105	+75.0
Percentage of assistants to total men employed.....	59.4	55.4	-6.7
Percentage of hand feeders to total assistants.....	71.5	55.1	-22.9

This table further points to the change in feeding technique and the incidence of this change upon the hand feeding assistants. Whereas total presses increased 17 per cent, those hand fed fell off 14 per cent and those equipped for automatic feeding increased 60 per cent. Pressmen in charge increased almost twice in proportion to their presses, and three times in proportion to the press feeding assistants. While assistants on mechanically fed presses increased 75 per cent—even

(5) The number, names and addresses of the men employed who were affected by these changes, (a) those transferred to new or to other machines or processes, and (b) those dismissed, explaining the exact nature of the transfer or of the reason for dismissal.

In the absence of written records regarding equipment and number of men employed, manager and foreman, interviewed singly or together, did not always agree. Cross-questions by the highly specialized investigator, guided by his own personal knowledge, usually dissolved the points of difference. In a few cases where this method was unsuccessful, others in the pressroom were questioned until the corrected record was complete.

more than presses, the number of hand feeders was reduced nearly 15 per cent—a greater reduction than for hand fed presses.

A 6.7 per cent net loss of employment for press assistants thus occurred in these 36 plants during the 5-year period, with a more than corresponding gain for pressmen. Pressmen gained 4.6 men and assistants lost 3.2 men to every 100 presses. This loss for press assistants included a drop of 11.4 hand feeders and a gain of 8.2 operators to 100 presses. Hand feeders fell off more than one-fifth in numerical importance.⁸

Here is evidence, then, that improved press machinery brings important changes in the employment of men. New processes take the place of old, seeming to require more of one group of workers and less of another group—more pressmen and fewer assistants; many more assistants who can operate than those who hand feed.

Some knowledge of the nature of the work of pressmen and assistants will make the meaning of these changes in their employment more clear. The skill of the pressman is of high standard of craftsmanship. He must be a skilled mechanic and he must have good color sense for mixing inks unless he is confined to black printing. Some general education and executive ability are necessary, as well as the character to assume responsibility. In the last analysis the pressman is responsible for production and for the quality of work.

When the form comes from the composing room, the pressman locks it on the bed of the press and prepares it for printing. It must be made "type high" to give even impressions. A gauge is applied and any matter that needs raising is marked and underlaid, while that which must be lowered is shaved down. A proof sheet will then indicate what further "packing" is required. The pressman marks the sheet so that other "underlays," "interlays" and "overlays" may be made. This is "make-ready" process and requires skill and judgment. Proper ink distribution is another responsibility of major importance, and the delivery mechanism must be kept in smooth running. Finally, the pressman frequently helps the assistant in setting the automatic feeder.

The assistant, however, has a more variable job. If he is sufficiently intelligent and willing to take initiative he will probably assist the pressman in most of the processes just described. Basically, however, he does the feeding and helps with the make-ready, patching up the

⁸ These data are so similar to those revealed by the larger survey of the 53 plants that we may be fairly certain of their reliability as a picture of what has occurred in New York City. In the 53 shops the net loss of employment for press assistants was 6.3 per cent while the proportion who hand feed fell off 24 per cent. The respective percentages for the non-union establishments were 8 and 9. Medium sized non-union shops in New York City are smaller than the union shops, they fill small orders, and therefore tend to do more hand feeding than might be expected.

TABLE IV
PRESS EQUIPMENT AND MEN EMPLOYED, BY GROUPS, IN 36 UNION PLANTS IN NEW YORK CITY, WINTER OF 1923-24 AND WINTER OF 1928-29

Classification of presses and men	Platen			Job automatic cylinder			Small cylinder			Large cylinder			2-color and perfecting		
	1924	1929	Per cent change	'24	'29	Per cent change	'24	'29	Per cent change	'24	'29	Per cent change	'24	'29	Per cent change
Combined for job automatic and small cylinder*															
1924		1929		Per cent change											
Presses Hand fed Mechanically fed	145	121	- 16.6	57	114	+100.0	44	66	+50.0	108	109	+ 9.0	4	9	+125.0
	101	95	- 5.8	0	0	—	32	25	-21.9	74	60	-18.9	2	3	+ 50.0
	44	26	-40.9	57	114	+100.0	12	41	+241.7	34	49	+44.1	2	6	+200.0
	97	84	- 13.4	86	150	+74.4				166	174	+ 5.0	6	14	+133.3
	38	31	-18.4	43	86	+100.0				60	64	+ 6.7	3	7	+133.3
Men employed Pressmen Assistants Hand feeders Operators	59	53	-10.2	43	64	+48.7				106	110	+ 3.9	3	7	+133.3
	58	51	-12.1	20	18	-10.0				72	59	-18.1	1	1	0
	1	2	+100.0	23	45	+100.0				34	51	+50.0	2	6	+200.0

* Interwork by the men in these two groups is so common that they cannot be listed separately with accuracy.

markings which the pressman has indicated. If he is a hand feeder, he stands at the feed board and inserts sheet after sheet, taking care to place them against the guides, as described in the early pages of the paper. Periodically he replenishes the pile of blank paper and, when the paper is printed, he assists the pressman in removing the printed sheets from the delivery table. In some plants he is expected to watch the platens for press color. The assistant who operates an automatic feeder is expected to know how to adjust this device at the start of each new job. He also assists on make-ready, he loads up the feeder and, frequently, helps to remove the piles of printed paper unless these have been delivered automatically from the press. One style of mechanical feeder stands high and necessitates carrying paper up six steps for loading, at intervals of about every half hour through the day.

Shop practice in job printing plants makes it difficult to discover and even more difficult to explain in a few words the exact shifts in employment as changes in technique take place. Printers usually have more equipment on their floors than is used every day. The semi-obsolescent presses may be idle a large part of the time, while the newer presses are kept humming. This means that the plant is not completely manned, and that, as before mentioned, the management depends upon recruits from outside when extra work is to be done. It means also that, within the regulations of the unions and the limitations of skill, men move about among presses to meet the demands of the hour and the day. The census taken for the 36 plants and shown in the accompanying table reflects these practices when we examine the changes in the five press groups.

From this table the passing of the platen and large cylinder presses is again evident, particularly the platens. It will be noticed, however, that the number of men employed on platens fell off less than the number of presses, while the opposite is the case for job automatic cylinders. This means that men in the platen group worked also on automatic cylinder presses. It means, more significantly, that at least some of the hand feeders could also operate automatic feeding attachments. Likewise among the larger presses some men tabulated as large cylinder workers helped to run the color presses on the one hand, and the larger sizes among small cylinders on the other. The effect upon employment of these plant rearrangements will be shown in the example of Plant X.

It is unfortunate that productivity in these pressrooms can only be approximated. Actual job printing output has never been computed with satisfaction because of the wide variability in presses, paper and ink. No standard units have so far been established whereby the almost endlessly diverse products can be classified and measured. The presence on the floors of partially idle machinery further complicates

problem. Nevertheless theoretical productivity for the union plants as computed, that is, assuming capacity operation of all presses on the floors by a full complement of men according to union contracts. Since it is *relative* change which we seek, comparisons of theoretical production, with a five-year interval for technical change are not without meaning. In the accompanying table these 36 medium sized New

	1923-24	1928-29	Per cent change
Total square inch capacity per hour in thousands.....	338,136	436,028	+29.0
Number of men.....	399	484	+21.3
Square inch output per man per hour in thousands.....	847	901	+ 6.4

New York City plants show a total increased capacity of 29 per cent with a 6 per cent greater productivity per man and a 21 per cent increase in men theoretically employed.⁹

To summarize the findings in New York City, we discover marked technical progress, a relative increase in the number of men employed, and some advance in per capita productivity. There is a good deal of mobility among pressroom employees owing mainly to the fact that equipment is not used to its capacity. This practice appears definitely to modify the extent of displacement. The displacement which actually occurs chiefly concerns the press assistants, for, while the total number of pressmen increased in the 36 plants, the press assistants suffered decline. This decline occurred entirely within the ranks of the hand feeders. Contrary to current belief, then, that technical progress reduces the need for skilled men relative to the need for the less skilled, there is a branch of industry—the pressroom in commercial printing—in which technical progress increases the relative demand for skill.

Displacement from Technical Progress

We come now to review the main question of this paper. Has unemployment been associated with technical progress in the commercial printing pressroom, or is it possible that displacement of men has been largely avoided as printing has increased in volume, by transferring the men from old equipment to new?

⁹ The fact that union requirements regarding the complement of men on the different presses have been observed in this theoretical estimate, as though all presses were running all the time, partially accounts for this small advance in per capita productivity in the face of the greater use of improved equipment. As a matter of fact it is the high speed presses only which run all the time. On the other hand, however, as already explained, New York City printers are producing a greater proportion of short-run work and this is labor consuming. This was even more evident in the nine large plants where a greater proportionate increase in men occurred, with a decrease in their per capita output.

In the attempt to answer this question we have actually discovered after searching investigation, less man displacement from technical change than had been anticipated. By man displacement is meant actual separation of a man from work because of improved machinery or shop practices. Obviously, the new presses and automatic feeding machinery which have been described and discussed in the foregoing pages have wrought job and process elimination. Investigation divulges some man displacement, as well. But also the word of employment for printers appears to be strengthened when they urge that new machinery, because of more business, has meant the employment of more men instead of less.

One of the three chief bases for this summary statement is the survey made of 53 representative plants in New York City which has already been mentioned. Throughout this investigation an exhaustive attempt was made to secure the names and addresses of individuals who, because of technical change during the 5-year period, had suffered loss of job or had been transferred. The total absence of employment records revealing reasons for disappearance of names from the payroll together with the very high turnover which exists in many plants for the press assistants in particular—these two conditions made difficult and at times impossible the allocation of displaced men. Nevertheless, persistent effort brought exact information in a number of plants regarding the shifts among the regularly employed men and the identity of those displaced as technical changes took place. The story of what occurred in a single shop will aid understanding of the developments in all.

Fifteen presses were reported for Plant X, both in 1924 and in 1929. But the nature of the equipment was altered in the interval. Four hand fed large cylinders had given way to four smaller high speed self-feeding machines—two job automatic and two small cylinders. The net effect upon the workers was a reduction of three in the force regularly employed—from 20 to 17 men. The subjoined tabular statement will assist in presenting the case clearly.

It will be noticed that the changes in equipment were not made at one time. The four large hand fed cylinders were discarded in January, 1929, at which time two small self-feeding presses were installed. Two new job automatic cylinders had also been acquired in 1927, which caused the addition of one pressman. The change in 1929 carried with it the discharge of one pressman and three assistants. This left the same total number of pressmen in 1929 as had been employed in 1924 (8). Assistants were reduced by 3 (leaving 9 instead of 12). While four hand feeding jobs were thus entirely wiped out, one of the hand feeders at an increased wage was transferred to operating on the

Press	
1923-24	
Job Press Dept.	
Platens.	
Job automa	
Total.	
Cylinder Pre	
ment	
Small cylin	
Large cylin	
2-color cyli	
Total	
Total, both	
1928	
Job Press L	
Platens.	
Job auto	
Total	
Cylinder K	
ment	
Small c	
Large c	
2-color	
Total	
Total, bo	
1 F	
2 T	
3 A	
two m	
one p	
Pl	
the 3	
of p	
355	
the	
redu	
high	

THE X PLANT

Presses	Press equipment			Men employed		
	Hand fed	Mechanically fed	Total presses	Total men	Press-men	Assistants
1923-24						
Job Press Department						
Platens.....	3					
Job automatic cylinders.....		2				
Total.....	3	2	5	4	2	2 (hand feeders)
Cylinder Press Department						
Small cylinders.....	1					
Large cylinders.....	5 ¹	3				
2-color cylinders.....	1					
Total.....	7	3	10	16	6	10 { 7 hand feeders 3 operators
Total, both Departments			15	20	8	12 { 9 hand feeders 3 operators
1928-29						
Job Press Department						
Platens.....	3					
Job automatic cylinders.....		4 ²				
Total.....	3	4	7	5	3	2 (hand feeders)
Cylinder Press Department						
Small cylinders.....	1	2 ³				
Large cylinders.....	1	3				
2-color cylinders.....	1					
Total.....	3	5	8	12	5	7 { 3 hand feeders 4 operators
Total, both Departments			15	17	8	9 { 5 hand feeders 4 operators

¹ Four of these were discarded in 1929.² Two of these had been added in 1927.³ Added in 1929 when 4 cylinders were discarded.

two new automatic presses. (The orthodox complement of men is one pressman and one assistant to two presses of this size.)

Plant X is thus an interesting departure from the group picture of the 36 plants to which it belongs. While for the group the number of presses increased from 358 to 419 and the number of men from 355 to 422, in this plant the number of presses remained the same and the number of men was reduced by three. Moreover, in spite of this reduction, the ratio of men to presses in this shop is still considerably higher than for the 36 plants. It will be recalled that the average for

the group in 1929 was 100.7 men to 100 presses, while in Plant X after the reduction was made, the average was on the basis of 113 men to 100 presses. Plant X appears to require even further advance in techniques and more dislodgement of men if it is to come into line with other shops of its size.

The exhaustive effort which has been described, to find all regularly employed men who were displaced during the 5-year period, yielded a list of 42 assistants and 11 pressmen in the 36 plants in spite of the net increase in the number of men employed. A proportionate number were found in the other shops investigated. Although probably more cases existed than could be discovered, especially among temporary workers, what has been said of relative skills of pressmen and assistants, and of their restricted mobility as exemplified in Plant X, is, mainly, the explanation for these cases of displacement.

The two other main sources of information regarding unemployment from technical progress were the out-of-work rooms maintained by the unions and by the New York Employing Printers' Association, and circularization of the membership of the New York printing press assistants' local union.

Men were interviewed at random at various times in the out-of-work rooms. These contacts revealed surprisingly few instances of unemployment from the introduction of new machinery, and they served to emphasize the great care necessary in making the search for cases of this kind. Many men who felt themselves victims of technical change were found to be out of work for other reasons, such as the migration or the merging of plants. There seemed to be considerable unemployment as a result of mergers—combinations nearly always causing the loss of jobs to the workers of one or the other plant.¹⁰ While one could not be certain that the men always knew the real cause of their unemployment, according to their stories the most frequent provocation was general lack of work and, in the case of the press assistants, the irregularity in the demand for them.

In the circularizing process letters signed by the president were sent to the 2,400 members of the press assistants' local union, asking simple questions as to whether they had lost jobs during the five-year period when new presses or feeding attachments were installed in their plants. Five per cent replied to the letter, divulging 45 cases of alleged displacement. In 24 instances unemployment had resulted, while 21 men said they had been transferred.¹¹

¹⁰ These men were not included among those displaced by new techniques, although combinations frequently accompany technical progress. A separate study should be made of the technological causes of mergers in commercial printing and their effects upon employment.

¹¹ The very paucity of returns from this circularizing of union members seemed to bear some significance in the light of the close contact of the investigators with

Each individual whose name and address had been obtained from any of these methods was then personally interviewed at his home by an investigator who, with the use of a carefully drafted schedule of inquiry, elicited salient facts relative to his status as a result of his displacement. The five men affected by technical progress in the X plant, now more than a year ago, were among those who were sought out and interviewed. The hand feeder who was transferred to operating lost no time in the process and received a weekly \$4.00 increase in pay. The pressman has not yet found entirely regular employment as a pressman. One of the three displaced feeders is also a victim of irregular employment, receiving from one day to two weeks' work at a time. The other two of the four feeders fared well. They are regularly employed in open shops operating automatic feeders at the union scale. They work full time now as compared with three days a week while hand feeding in the X plant. Their money income is higher than ever before. This group had struck better fortune than some others interviewed who had found little employment since dismissal.

It should be emphasized that the relatively small amount of man displacement by technical change which was discovered in this inquiry offers no certain forecast for the future. This precaution seems especially important in the case of the press assistants. A hand feeder may or may not know how to operate an automatic feeding attachment. If he can do so, he is, obviously, more easily absorbed as mechanization advances in his plant. If he knows only hand feeding but desires to learn to operate, has a degree of mechanical ability, and measures up to some personal standard which his foreman may hold, he will more likely than not be taught by the foreman, or, in some other way, learn to operate the new machine and be transferred permanently to the new position. Hand feeders sometimes succumb to the monotony of their work so that ambition is benumbed. Also, men advanced in years are more likely to be timid about learning the new techniques.

Pressmen, on the other hand, are the key men. Highly skilled and responsible for satisfying the customer, they are of major importance to a printer's reputation. After a four years' apprenticeship, they have largely been recruited from the ranks of the more promising assistants. Except for color work, which requires a special skill, a pressman is supposed to be able to run all presses in his department—the job pressman in the job department and the cylinder pressman in the cylinder department. His transfer from one press to another

the officials who were giving earnest coöperation throughout the inquiry. It is the union's firm belief that the new machines are a large factor in their unemployment problem, and it was to their advantage to show as much evidence as possible that this is true. Hearsay instances of displacement which were gathered up at the headquarters of the union were in all cases investigated.

is usually a matter of routine. At present, at least, he seems more or less secure from dislodgement by technical change.

Press assistants have reason to feel less secure than the pressmen as printing techniques are improved. First of all, they may not be mechanically inclined. As hand feeders this bent was not necessary, whereas some knowledge of machines is requisite to become a good operating assistant. In so far as hand feeding is passing out of the printing picture, then, hand feeders must learn the new process or seek other employment. Nor is the opportunity to advance always made easy. The total absence of employment managers in the plants, and of systematic methods of teaching the new techniques, renders assistants at times too dependent upon their pressmen-foremen for holding their old jobs or for being transferred.

A third point in evidence of the more precarious position of the press assistants is the preference for pressmen on the part of the employing printers. With the introduction of the modern high speed automatically fed press, many employers contend that it is more economical to reduce the number of presses over which a pressman has charge and include in the pressman's function the operation of the feeding mechanism as well, thereby rendering the assistant unnecessary. In not a few cases pressmen are now paid premium wages not only for superior work but for including assistants' work within their own, while on the other hand employers admit that they begrudge assistants the high wage which they receive by demand of the union. This preference for pressmen is borne out in the study of the 36 plants, where it was possible to compare, in 1924 and in 1929, the number of pressmen and assistants actually employed with the number which would have been employed had the presses been running at capacity and manned according to agreement with the two unions involved. In 1929 the actual number of pressmen employed was 92 per cent of the theoretical as compared with 89 per cent in 1924. For the assistants the per cent actually to those theoretically employed fell from 90 to 84.

Strong evidence comes to light that press assistants are losing their ground. Employing printers consider them of diminishing importance.²² On the other hand, the press assistants' union is strongly entrenched in New York City, and so far their bargaining power has been a retarding factor in the displacement of their men.

ELIZABETH F. BAKER

Barnard College, Columbia University

²² That press assistants are conscious of their insecurity is manifest in their present union policy of restricting membership. As compared with the 19 per cent growth in the number of pressmen union members in New York City since 1920, the number of press assistants has remained almost stationary, increasing but 3 per cent.

THE TARIFF ACT OF 1930

The Tariff act of 1930 is partly an outcome of the post-war agricultural depression. In form it is much like its predecessor. The general level of rates is appreciably higher than that of the law of 1922. The flexible provision which appeared in the Act of 1922 is retained, and on this provision President Hoover relies to reduce imperfections. The protest of the economists is fairly representative of the feeling of a large part of the public. In tariff legislation we are national minded, while our economic interests are becoming more and more international.

Tariff laws in the United States are subject to frequent revisions. From the Act of 1883 to that of 1930 the average life period of a tariff law (leaving out of account special legislation like that of the Emergency Act of 1921) has been less than seven years. The Act of 1913 (modified in 1921 by the Emergency Tariff just mentioned) remained law for nearly nine years, and the Act of 1897 (Dingley Bill), for approximately twelve years. On the other hand, the acts of 1890, 1894 and 1909 remained on the statute books for periods of only three or four years each. A tariff law in a country with interests so diverse as those of the United States is not characterized by any high degree of stability; and this lack of permanence has been a source of much complaint among business men.

The passage of such laws is furthermore consuming a considerable amount of time. Shortly after the election of 1920 the Ways and Means Committee of the House of Representatives began laying their plans for tariff revision, and hearings were held as early as January, 1921. The Fordney-McCumber bill, however, did not assume its final form until September, 1922—about twenty months after serious work on it had begun. About a year and a half was given by Congress to the framing of the law of 1930. As in the case of the earlier act the outcome of the preceding presidential election was the signal for an overhauling of the tariff, although most of the formal hearings were held after the calling of the special session by President Hoover in the spring of 1929.

Conditions Favoring a New Tariff Act

Unlike the legislation following the election of 1920 there had been no change in party or party policy so far as the tariff was concerned. The new law was not passed in response to any widespread demand for an alteration of tariff policy. The sponsors for revision were high tariff men, and for the most part belonged to the same political party that enacted the law in 1922. Indeed, during the campaign of 1928 the tariff was not an important *party* issue. The political platforms of both the leading parties endorsed the policy of protection. There was of course some difference in wording; but a tariff safeguard for Ameri-

can industries was given recognition as a necessity. In parts of the South the policy of protection was strongly emphasized by Democratic orators—a procedure somewhat new to this section of the country.

The years following the passage of the Act of 1922 had on the whole been years of business prosperity. This prosperity, however, had not been well distributed. Some of the industries which had been established as a result of the World War and whose products were highly protected under the law of 1922, practically ceased to grow, and a few even passed out of existence.

Agriculture, which had been prosperous under the high prices prevalent from 1917 to 1920, suffered like other industries from the depression which set in late in 1920 and continued through 1921. Unlike the latter, however, it experienced no marked revival during the middle and later years of the decade. As a large proportion of the productively employed people of the United States are still farmers, the agricultural interests were able to put considerable pressure upon their representatives in Congress to propose for consideration various remedial laws. The well-known McNary-Haugen bill was one of several such measures.

The agricultural depression which continued through most of the decade from 1920 to 1930 was related to several conditions more or less incident to the change from a war to a peace status—conditions which made readjustment slower than in other industries. Price indexes during many post-war years showed that farm products were selling at prices nearer those prevailing in pre-war times than in the case of products of most other industries. In 1926, for example, a prosperous and fairly typical post-war year, the index number for wholesale prices as determined by the Bureau of Labor Statistics (the year 1913 being taken as 100) was 151.0, while that for farm products alone was 142.2. The index numbers for foods, clothing materials, fuels, building materials, and house-furnishings ranged from 152.9 to 179.9. In other words, the purchasing power of farm products in general had experienced a marked decline in post-war years as compared with the years immediately preceding the war. Index numbers for 1927 and 1928 showed some improvement, but not sufficient to offset a long period of agricultural depression. Even during these years certain figures based upon those compiled from data gathered by the Departments of Agriculture and Labor show that the commodities bought by farmers were relatively higher in price than those sold by farmers.¹

In addition to the agricultural depression just noted and the dissatisfaction of certain industrial interests over the results of protection, there was much criticism of the way in which certain administrative

¹ See *Statistical Abstract*, 1929, page 642.

features in the Act of 1922 had been carried out. The so-called flexible provision of that law, for example, had operated to raise rates on certain commodities which were already regarded as too high, and in at least one conspicuous instance (that of sugar) had not resulted in any reduction in rates, although such reduction had been recommended by a majority of the Tariff Commissioners. This criticism, it is true, was not made in the interest of such a revision as that made by the law of 1930, but it contributed something to the influences which favored the enactment of another tariff bill.

In the political campaign of 1928 Mr. Hoover stressed the importance of the protective tariff as an aid to agriculture. This emphasis was probably due to the fact that the farming interests were clamoring for legislation designed to counteract the effect of the relatively low price levels which obtained on agricultural products. Some of the measures which received consideration in Congress were virtually price-fixing policies in the interest of farmers; and to these the Republican nominee, like the then President, was strongly opposed. The tariff was seized upon as a partial remedy for the existing agricultural depression. There is no reason for believing that this stressing of the tariff played any appreciable rôle in the outcome of the election. As has been already indicated, the Democratic party had virtually abandoned its former attitude on the tariff and adopted the policy of protection, if not of high protection. Campaign declarations and pledges, however, had to be carried out in good faith. Hence the election of Mr. Hoover meant another attempt at tariff revision.

General Form of Act

Before discussing the rates and administrative provisions of the Act of 1930 something should be said of its general form. In outline it is very similar to the act it supplanted. Like the Tariff of 1922, the new law is divided into four general parts, called "titles." The first of these parts consists of the dutiable list; the second, of the free list; the third, of various special provisions; and the fourth, of numerous and detailed administrative regulations. Title III is subdivided into two parts. The first embraces several miscellaneous provisions with respect to our trade with the Philippine Islands, Porto Rico, Cuban reciprocity, immoral articles or literature, special kinds of imported product, and the like. The second is devoted to the organization and powers of the United States Tariff Commission. The so-called flexible provision is included in this part of the act. Title IV is similarly subdivided into six parts, all taken up with administrative details and procedure.

In Title I the dutiable list is divided into numbered schedules as is the

Act of 1922. Lettered schedules like those of earlier laws have apparently been abandoned. Each schedule is allotted a possible one hundred paragraphs, the initial paragraph in each schedule being numbered the first of its one-hundred group. Thus Schedule 3—Metals and Manufactures of—begins with paragraph 301, although Schedule 2 closes with paragraph 236. As was pointed out by the writer in an earlier article on "The Tariff Act of 1922,"² this system of numbering is a wide departure from earlier practice.

Under the new law the dutiable schedules number fifteen instead of fourteen, a separate schedule having been made for "Manufactures of Rayon or Other Synthetic Textiles." This schedule is numbered 13 in place of Papers and Books, which becomes Schedule 14. Schedule 15 is the catch-all schedule called Sundries, and it is the last of the Dutiable List comprising Title I. Schedule 16 is the Free List. In the present act it has 214 paragraphs. As has already been mentioned, the Free List constitutes the second of the four parts (called titles) into which the act is divided.

It is unfortunate that the change in the numbering of paragraphs introduced by the Act of 1922 has not been followed by certain alterations in the grouping of commodities. Some paragraphs contain a very miscellaneous assortment of articles, often rather remotely related to one another so far as method of production is concerned. Processes of manufacture, long ago obsolete, are also named in connection with the designation of dutiable commodities. Some rearrangement, which would do away with these defects or at least reduce them, is a crying need. On the other hand there have been several improvements in terminology and minor classifications—largely at the suggestion of the Tariff Commission.

Rates

The rates of the act of 1930 indicate that a high protective policy is being followed. On many commodities the high duties contained in the law of 1922 are continued; in a few instances there are reductions, but in many more, marked increases. The reductions appear in cases where some pressure was put upon Congress to place the product on the free list, or where the rates in the Fordney-McCumber act had proved to be absurdly high. Perhaps the most conspicuous instance of the former is that of automobiles where manufacturers had repeatedly asked to have their products admitted free. The contention of these manufacturers has been that high rates of duty on the products of industries not needing protection would lead only to reprisals abroad, and the automobile industry depended in part upon a foreign market. Even-

² AMERICAN ECONOMIC REVIEW, March, 1923, page 16.

ally Congress was induced to reduce the rate on automobiles from 25 to 10 per cent ad valorem. The duties on certain chemicals, aluminum, and some other products, which had been excessively high in the Act of 1922, were reduced slightly in the present bill.

The increases in rates are more noteworthy, both from the standpoint of the kind of products affected and from the standpoint of the advances made. A large proportion of these increases took place in the agricultural schedule (schedule 7) and in other schedules containing farm products forming the raw materials for various manufactured goods (schedules 5, 9, 10, 11, and 15). Some increases were made in the rates for products from mines and quarries. Several commodities heretofore on the free list were transferred to the dutiable list. As in the case of the tariff of 1922, the influence of the representatives from certain agricultural and mining regions of the country was potent enough to secure high rates on raw and crude products which of course had to be compensated for by corresponding, or at least compensating, advances on manufactured or finished goods.

In a large proportion of cases these advances amounted to 50 per cent or more over those which prevailed under the Act of 1922, and in some instances, to as much as 100 per cent. There were some cases in which the rate per unit of ingredient in a given commodity remained the same in the two laws, but the method of computing the entire duty was so changed as to amount to a very tangible increase. Thus manganese ore is dutiable under both the acts of 1922 and 1930 at one cent per pound of contained manganese. Under the earlier law, however, only the manganese in excess of 30 per cent is dutiable, but under the latter, all the manganese in excess of 10 per cent is subject to the rate indicated. At the prices prevailing in 1922 the lower or earlier rate was equivalent to more than 50 per cent ad valorem—an exceptionally high duty for a raw product. As high-grade manganese ore, such as that needed in the manufacture of most kinds of tonnage steel, has a metallic content of practically 50 per cent, this change in computing the duty virtually amounts to a doubling of the tariff rate.

The increases in the rates of manufactured products were less conspicuous and less significant than those on raw and crude materials. In some instances they were little more than compensatory for the duties imposed on raw and crude products, but in others they represent material additions in the degree of protection afforded. In the textile schedules (9 to 13) increases over those prevailing under the Act of 1922 are frequent.

From a general tariff bill of the kind framed in the United States it is difficult to select a small number of items which can be said to typify rate trends. However, the following table contains a list of products

TARIFF RATES ON SELECTED ARTICLES IN THE ACTS OF 1913, 1922 AND 1930

Article	1913	1922	1930
Raw sugar ¹			
96° centrifugals			
Full duty	1.26¢ per pound	2.21¢ per lb.	2.50¢ per lb.
Cuban duty	1.005¢ per lb.	1.76¢ per lb.	2.00¢ per lb.
Cattle under 700 lbs.	Free	1.50¢ per lb.	2.50¢ per lb.
Cattle over 700 lbs.	Free	1.50¢ per lb. ²	3.00¢ per lb.
Milk	Free	2.50¢ per gal.	6.5¢ per gal.
Cream	Free	20¢ per gal.	56.6¢ per gal.
Butter	2½¢ per lb.	8¢ per lb.	14¢ per lb.
Wheat	Free	(30¢ per bu. of 60 lbs. Later raised to 42¢ per bushel)	42¢ per bu.
Oats	(6¢ per bu. of 32 lbs.)	15¢ per bu.	16¢ per bu.
Lemons	(½¢ per lb. in bulk or in pkgs. exceeding 5 cu. ft.)	2.0¢ per lb.	2.5¢ per lb.
Pig-iron	Free	(75¢ per ton. Later raised to \$1.125 per ton)	\$1.125 per ton
Manganese ore	Free	(1¢ per lb. of contained manganese in excess of 30%)	1¢ per lb. of contained manganese in excess of 10%
Tungsten-bearing ores	Free	(45¢ per lb. of contained tungsten)	(50¢ per lb. of contained tungsten)
Fir, spruce, hemlock, pine and larch lumber	Free	Free	\$1.0 per M feet
Long staple cotton	Free	Free	7¢ per lb.
Clothing wool, ³ clean content	Free	31¢ per lb.	34¢ per lb.
Woolen blankets	25%	(18¢ per lb. and 30% to 37¢ per lb. and 40% 55%)	(30¢ per lb. and 36% to 40¢ per lb. and 40% 60%)
Woven silk fabrics (Silk clothing, not specially provided for)	50%	60%	65%
Brick	10%	Free	\$1.25 per M.
Cement, hydraulic	Free	Free	6¢ per cwt.
Flax, straw	Free	\$2 per ton	\$3 per ton
Hemp and hemp tow	Free	1¢ per lb.	2¢ per lb.
Hides	Free	Free	10%
Sole leather	Free	Free	12½%
Shoes and boots	Free	Free	20%
Matches, not over 100 to a box	3¢ per gross	8¢ per gross	20¢ per gross
Olive oil	(20 to 30¢ per gal.)	7½¢ per lb.	9½¢ per lb.

¹ What is called raw sugar arrives in the United States partially refined. The greater part of it has already been refined 96° by polariscope test. Hence the duty is usually stated on that basis. In recent tariff acts a specified rate is given for sugar testing 75°, and a fraction of a cent is added for each degree of refinement.

² In the acts of 1922 and 1930 the duty on raw wool for clothing is given for the clean content (washed). In earlier acts like those of 1897 and 1909 the rate is stated for unwashed wool. For purposes of comparison with these laws the rate of 31¢ per pound in the Act of 1922 would be equivalent to about 15¢ per pound.

³ The rate on cattle weighing 1050 pounds or more each was 2¢ per pound.

Those proposed duties received some public attention during the period when the act was being framed. The rates as finally fixed are compared with the corresponding duties in the acts of 1913 and 1922.

The rates in the above table are fairly indicative of the continued progress toward greater protection, especially in the cases of agricultural and other raw or crude products. As has been indicated, there are some reductions in the act, but only where the maintenance of high duties had become an obvious absurdity. As in the Act of 1922 the rates on tonnage iron and steel have for the most part remained low or moderate. In the earlier act some increases took place over those of the law of 1913; but no serious attempt was made to restore the rates which had prevailed under the act of 1909. Barring the higher grades of manufacture, the iron and steel industry, which at one time had been a favored darling of ultra-protectionists, had so grown as to be independent of tariff barriers, and has been showing more interest in the development of an export trade than in safeguarding a home market against foreign competition.

Though some important commodities which had hitherto been admitted free are now made dutiable, the free list is still fairly extensive. In accordance with protectionist policy this list is made up largely of products which do not come into competition with those of American industry, like raw silk, rubber, coffee, tin and numerous minor commodities whose production is not suited to conditions prevailing in the United States.

Any attempt to estimate the average level of rates in the new law for purposes of comparison with earlier laws is futile. The articles enumerated in the act vary greatly in importance. To compute an average on the basis of volume of imports, as does the Bureau of Foreign and Domestic Commerce in making out averages for both dutiable imports and imports in general, leaves out of account rates which are practically prohibitive in their effect. Mr. Hoover in announcing his intention of signing the tariff bill made use of the Tariff Commission's figures to show that under it from 61 to 63 per cent of our imports would be admitted free and the average level of rates for all imports both free and dutiable would be about 16 per cent as against 13.3 per cent under the act of 1922 and 25.8 per cent under the Dingley act.^a Using that method of computation, if all the rates for dutiable commodities were so high as to be absolutely prohibitive, it could be argued that the average level of rates under the new law had been reduced to zero!

A careful survey of the new law will show several duties which are practically prohibitive. There are others which will probably have little

^a New York Times, June 14, 1930.

influence on the volume of imports but which will impose a considerable burden on consumers. A good example of such an effect is the rate on manganese ore already referred to. Manganese ore under both acts of 1909 and 1913 was on the free list; but in the act of 1922 it was made subject to a rate of one cent per pound of contained manganese where the metallic content was in excess of 30 per cent. Most imported manganese ores range from 40 to 50 per cent metallic manganese. Notwithstanding this high duty, steel manufacturers, the principal consumers, continued to import the bulk of ores they needed, as the following figures show:

IMPORTATION AND DOMESTIC PRODUCTION OF HIGH GRADE MANGANESE ORES, 1922-1927

Year	Importation ² (30% Mn. and over in long tons)	Production (35% and over in long tons)
1922	425,000	13,404 ¹
1923	419,000	31,500
1924	505,000	56,515
1925	610,131	98,324
1926	738,000	46,258
1927	622,027	44,741

¹ Figures for production are those of the Bureau of Mines: "Mineral Resources of the United States." The figures for imports are derived from the publications of the Bureau of Foreign and Domestic Commerce. Comparison is made between imported products of 30% manganese content and domestic output of 35%. It may be stated here that this difference does not invalidate the comparison, as the great bulk of the imported product grades well above 35% and little of the domestic ores containing less than 35% metallic manganese is used in the manufacture of soft steel.

² Since September 22, 1922, the figures for imports for consumption have been given in government reports in terms of metallic content rather than in terms of ore tonnage. In order to make them comparable with the figures for production it has been necessary to compute the ore tonnage. In doing this the estimates made by the American Iron and Steel Institute in its annual reports have been accepted.

³ This relatively low output is due to the severe depression of the preceding year when the steel output of the country was less than half the normal amount.

It will be seen that the heavy duty imposed under the Fordney-McCumber act had little influence in establishing a domestic industry to take the place of foreign industries. What the tariff did in this instance was to penalize the steel industry. The further increase in this duty under the Hawley-Smoot law will simply act as an added penalty, because the United States, so far as present geological surveys indicate, simply hasn't the needed resources.

The Tariff Commission and the Flexible Provision

The increasing multiplicity of interests involved in the passage of a general tariff law and the need for expert information has contributed to make the Tariff Commission a permanent part of our government machinery. The provision for a flexible tariff in the Act of 1922

September 1930]

changed this body from a simple information-gathering group of experts into one endowed with certain administrative and quasi-judicial functions. The purpose of this provision was to make the tariff within certain limits adaptable to changing industrial conditions. The ascertainment of differences in costs of production here and abroad and the power to make recommendations to the President for changes in rates where duties imposed upon the commission with a view to making the law respond to the alterations of trade.

The exercise of this added power by the Commission after the passage of the act of 1922 became an object of much public criticism. However, there was comparatively little disposition on the part of Congress in framing the new law to abandon the principle of flexibility. In the Senate an attempt was made to deprive the President of the option of accepting or rejecting the recommendations of the Commission and of lodging that power with Congress.⁴ In the act as finally adopted by Congress and signed by the President, the flexible provision remains practically the same as in the earlier law. The Tariff Commission after making an investigation with respect to a proposed change in rates is empowered to make recommendations for alterations to the President, who may accept or reject the Commission's findings. Proposed changes must not exceed 50 per cent of the duties named in the law. No transfer from the dutiable to the free list, or vice versa, is allowed. Neither is a change in the form of duty authorized.⁵ Changes in ad valorem rates to an American selling-price basis may in certain instances be made.

In the new act there is a provision for a reorganization of the Tariff Commission, the present members holding office until their successors are appointed but in no event longer than 90 days after the act becomes effective.⁶ This reorganization, however, does not change the number of commissioners (six) or the rule that no more than three can be members of the same political party. The reorganization, therefore, will be one of personnel. The salary of a commissioner is raised from \$7,500 per annum to \$11,000.

The operation of the flexible provision has been a subject of considerable discussion among those who are familiar with the work of the Commission. Rate changes in a tariff law are generally proposed by business interests eager for more protection. Hearings with a view to altering duties are sometimes held at the initiative of importers or large consumers of certain raw products who are interested in lower rates.

⁴ See H.R. 2667, In the Senate of the United States January 6 (calendar day March 24), 1930, Section 336.

⁵ Tariff act of 1930, Section 336.

⁶ *Ibid.*, Section 330.

But the pressure to make use of the flexible provision comes mainly from those who want increases in rates. As for the ultimate consumer—the man who buys with no business end in view—he is simply not represented.⁷

The influences which are most active in determining tariff changes are indicated by the relative number of changes made in rates upward and downward under the flexible provision of the act of 1922. From the time that law went into effect to June, 1929, the President proclaimed changes of duty at the recommendation of the Tariff Commission in 37 cases. In 32 instances rates were raised, and in only 5 were they reduced. The 5 articles whose duties were reduced were millfeed, bran, etc.; bob-white quail; paint-brush handles; cresylic acid; and phenol.⁸ The recommendation of the Commission that the rate on sugar be lowered was ignored by President Coolidge.⁹ And in the new act the duty on this commodity was not only not reduced but very substantially increased.¹⁰

Such a showing is indicative of the influence which is brought to bear upon a body endowed with the power of recommending alterations in tariff rates. At the same time business conditions are changing, and if the country is to have a tariff at all, it should be one that can to some extent respond to new industrial demands. As has been pointed out, the drafting of a general tariff law is a highly complicated affair with numerous interests to be considered and harmonized. Such legislation in the very nature of the case cannot be undertaken every two or three years. Some degree of flexibility therefore is desirable. Yet the lack of any real representation on the part of the consuming public in deliberations before the Commission is a serious handicap to the impartial administration of the flexible provision. When a general tariff law is being framed by Congress the public is given considerable information as to what is taking place. When a proposed change in tariff rates is made under the flexible clause little publicity is given to the proposal until the President issues his proclamation declaring a new rate.

Mr. Hoover in signing the new tariff bill hailed the flexible clause as giving power to correct faults and end foreign protests. No tariff bill,

⁷ Hon. D. J. Lewis, a former Tariff Commissioner, argued against the incorporation of such a provision in a tariff law mainly on this ground.

⁸ Information furnished the writer by the Tariff Commission.

⁹ It should be said in this instance that the Commission was divided in its recommendation, three members being in favor of reduced duties and two against such reduction. One member was disqualified from taking part in the findings because of the interest of certain relatives in sugar land property.

¹⁰ In the House bill the rates on raw sugar were fixed at 3c per pound (general) and 2.4c per pound (Cuban). These duties are materially above those eventually adopted and the adopted rates higher than those in the law of 1922.

the states, is perfect.¹¹ Within the limits authorized by the flexible provision, the President and Tariff Commission could reduce many imperfections in the present law. But in the light of what has been said will they be able to function in the way desired? Dr. Klein, Assistant Secretary of Commerce, predicts success for the operation of the clause. He finds that it conforms to the spirit of the modern business age, that under the interpretation put upon it by the President it is given a generous and human aspect in our relations with other countries, and that in the determination of foreign costs and prices the procedure of the Commission is made more definite.¹² The crucial problem, however, of resisting an undue pressure of a host of private interests seeking protective safeguards in the absence of a practically unrepresented public, still remains.

The Protest of the Economists

The tariff bill which was first drafted by the House Committee on Ways and Means went through many changes or modifications before it finally became law. As in the case of the Fordney bill eight years earlier, there was little debate on principles of international trade and general tariff policy. No clearly defined line of cleavage developed between those who favored a high tariff and those who favored a low one. The industrial or sectional interests represented were the principal influences deciding which way a Congressman or Senator would vote.

In the United States Senate, where discussion was longest, the tariff act in its final form was carried by a majority of only two. Eleven Republicans voted against it, and five Democrats, for it. The vote against the bill was in part a protest against the high rates imposed on several products; but not entirely. Some voted against it because the provision for export debentures, which had been a part of the original Senate bill and to which the President was opposed, had been eliminated, and others, for reasons unconnected with high duties.

The tariff act of 1922, which was characterized by high rates of duty, was in a measure a response to the spirit of nationalism which had become intense in this as in other countries during the closing years of the World War and the years immediately following. After its passage, this country entered into various arrangements with her former allies or associates in the world struggle for the payment of war debts, and took an active part in the settlement of the indemnity to be paid by Germany. American capital was also going abroad into various lines of foreign business. The significance of these new developments was ap-

¹¹ *New York Times*, June 16, 1930.

¹² *New York Times*, June 23, 1930. The Commission has at times been embarrassed, for example, in the matter of figuring into costs certain transportation charges. This matter is at least partially clarified in the new law.

parently lost to the framers of the new tariff act. Not only were the rates in this act high, but they were appreciably above those of the act of 1922.

While the law was still in process of formulation and its general character was being indicated, an appeal to Congress and to President Hoover to prevent the passage of any measure providing for an upward revision of rates was circulated among the economists of the country for signature. Over a thousand signatures were secured from teachers and professors in 179 colleges and universities. President Hoover was asked to veto the measure if Congress passed it. The grounds of the appeal, briefly stated, were the following: that further restrictive duties would raise prices and therefore the cost of living, encourage concerns with high costs to undertake production and thus subsidize waste, limit the export of both farm and manufactured products, affect injuriously American investments abroad, and operate to promote tariff wars. The wording of the appeal, though general, was sufficiently definite to indicate the operation of certain well recognized principles of international trade which are often ignored in the framing of American tariff bills.

The economists spoke only for themselves. But newspaper comment both upon the appeal and the tariff act itself showed that the economists were by no means alone in their protest. This act in providing for a general and material increase in rates over such a high tariff as that of 1922 has caused something of a shock to the public even in this classic land of protection.

The appeal of the economists was itself an object of considerable criticism. This criticism ranged all the way from the rather extravagant exclamation of Senator Shortridge of California who declared that he was "not overawed or at all disturbed by the proclamation of the college professors who never earned a dollar by the sweat of their brow by honest labor—theorists, dreamers," etc.,¹³ to certain comments as to the effect of such an appeal on the public mind with regard to the impartiality and scientific spirit of economists.¹⁴ With reference to these latter comments it is a question how far the American public has formed any impression of the impartiality and scientific spirit of economists. Assuming, however, that there is an appreciation of this spirit among the more intelligent, it is still debatable whether an attitude of aloofness with regard to economic and political questions is calculated to impress the thoughtful as being either impartial or scientific. Being impartial or scientific is not synonymous with being indifferent or adopting a negative attitude. The spirit shown by one's participation in

¹³ *The People's Business*, June, 1930.

¹⁴ The writer was present at two gatherings of persons interested in the political and social sciences where this question was raised.

public discussion or political activity is a better index of his disposition to be intellectually honest.

How a tariff law is framed and how it becomes a resultant of the pressure of numerous selfish and often conflicting interests is not a matter of guesswork on the part of persons who have had any opportunity for observing tariff procedure. How such legislation often conflicts with the best interests of the country as a whole is also a matter of common knowledge to those who have made any study of the principles governing international trade. Unless one is convinced that the present method of framing tariff laws is the best possible under the circumstances and that rates of duty must always be a resultant of the pressure of a host of selfish interests, he can hardly afford to remain a silent spectator. Nor should such silence be dignified with the characterization of "scientific."

Whatever may be said of the beneficence or harmfulness of high protection in the past, commercial relationships so far as the United States is concerned, have been undergoing a marked change during the last two or three decades. The World War simply accelerated this change. Industrial or commercial relationships with foreign countries have multiplied and have become increasingly involved. These relationships, represented by large exporting, importing and financial interests, will inevitably work for a change in tariff policy. American public opinion is still largely national-minded, while economic interests are becoming more and more international in scope. Our mental attitude therefore will sooner or later experience a change in accordance with economic influences. It is very hazardous to make predictions with reference to future tariff laws. But the transformation indicated seems to the writer a probable influence making for lower tariffs in the future. If this guess on the part of the writer—and it is little more—is correct, the tariff act of 1930 will mark the apex or culminating point of protection in this country.

ABRAHAM BERGLUND

University of Virginia

COMMUNICATION

The Interest Rate and Diminishing Utility

With a smile we turn to the student whom we have trapped with our favorite question: Does a change in the price of eggs from a dollar a dozen in December to fifty cents in April mean a change of demand? and urbanely point out to him that it means nothing of the kind. What has happened is the man in April buys more eggs. Those more eggs have less utility. We explain the law of diminishing utility and draw its graphs on the board.

But when we come to the theory of interest we do just what we have smiled at the student for doing. We explain a positive rate of interest as present time preference and present time preference as either impatience or as relative present time poverty and do not recognize that in combining these two under one term, time preference, we are combining a change of demand with an unchanged demand. Impatience is a change of demand in the future as against the present. But relative present time poverty requires a positive rate of interest though the demand for the present and the future be identical. Put in another form, impatience requires the existence of two curves of diminishing utility, a higher curve for the present, a lower curve for the future. If a line is erected from a base line measuring a certain amount of objective income units, and cutting the two curves of diminishing utility, an irrational interest rate would exist equal to the distance on the cutting line between the two diminishing utility lines divided by the length of the cutting line from the base line to the present diminishing utility curve line. Whereas an interest rate arising from present time poverty is compatible with the same curve of diminishing utility registering the importance of varying amounts either for the present or the future. But on the assumption of present time poverty, the margin of the future must be further along and therefore lower than the present. A rational rate of interest arises equal to the difference in height between these two margins divided as before by the height of the present margin. I am unable to see that there is any gain from using one term, such as time preference, to explain two such different concepts. I am unable to see that a step forward has been made from the concept, interest is the price at which people will exchange present for future, to interest is the price at which people will be willing to exchange present for future (time preference).

That concept is to me only the dividing point between the rational and irrational elements which determine the interest rate. The irrational element impatience could in itself create a positive interest rate in the absence of any other conflicting elements. Granted a certain technique, the amount of capital would be stabilized at the margin of impatience, leaving an interest which would reflect the difference between the two curves of diminishing utility.

But in granting a certain stabilized technique we have made an improper assumption. We live in a world of progress and that rate of progress is influenced by the degree of forethought, or, inversely, the degree of impatience which we possess. In short, the more there is of impatience, the less there is of savings, but the less there is also of progress and therefore of demand for savings. The theory of impatience is valid only for a world of consumer borrowing and consumer lending. It cancels itself when applied to a world of business borrowers.

A rational positive interest rate could exist however in a world of comparative present time poverty. Comparative present time poverty is the complement of comparative future opulence which has as its main cause progress.

Progress takes two forms, an improvement in technique and an increase in the amount of capital. If there were no net savings there should be a positive rate of interest caused by the technical superiority of the future over the present, and its effect on the difference between the present and future margins of consumption. Now, from the point of view of the individual, progress however caused should determine for him the minimum rate at which he should save, if, the very big if, there were no factor of risk, nor any factor of desire to save in his own business. It is estimated that real wages have doubled in the last fifty years. If the dollar were in terms of wage earning purchasing power, and if diminishing utility were a curve of unitary elasticity, then the minimum rational interest rate for infinitesimal savings should be one and a half per cent. But savings are not infinitesimal. Instead we save the enormous amount of one-sixth of our productive power. The more we save, the higher we raise the margin of consumption of the present, the more we lower the margin of consumption of the future. On the assumption above of unitary elasticity, the rational rate of interest should be over sixteen per cent. I am intrigued by the prospects of a transformation of the theory of interest from a theory of irrational impatience to explain any positive rate of interest at all to a theory of irrational patience to explain why the interest rate is less than sixteen per cent, or why we can save more than four per cent on a four per cent rate of interest.

Of course, I have omitted two great causes of savings. The first is enjoyment of investment in one's own business; and a very low rate of interest might justify large amounts of such savings. But that cause weakens as business becomes more concentrated and more impersonal. The other is risk, which tends to become the great cause of the savings of the middle and poorer classes. It has often been assumed that the more rational we become the more we shall save to meet risks. But the more rational our institutions of insurance the less need be saved to meet a given amount of risk. In a world of universal and static insurance no net savings at all would be necessary, simply a redistribution of income.

So I am left with an interest rate too low to be rational if there did not exist the institutional factor of the uneven distribution of income and the control of income. Uneven distribution of income seems astonishingly static. But the inequality of the control of income is constantly growing. In the hands of directors of corporations who are so rich that the diminishing curve of utility has little meaning lies the power to save and to make other people save. The use of that power has lowered the rate of interest below what would be rational for a people voting at a referendum.

To sum up: Impatience as applied to the business situation cancels itself. Rationalism seems to imply an interest rate higher than the existing one, at least relatively to the amount of present savings. But there is an institutional factor which permits giant savings at low interest rates.

OLIN INGRAHAM

Massachusetts Institute of Technology

REVIEWS AND NEW BOOKS

General Works, Theory and Its History

A Textbook of Economics. By W. J. WESTON. (New York and London: Isaac Pitman & Sons. 1929. Pp. xiii, 450. \$3.00.)

This is a typical English book on economics, and one of the best that has come out in recent years. It is typically English, not only in its scope, but in its thought and philosophy, and in its composition. Like most English writers, Professor Weston follows the classical tradition, with some Austrian influence. As he announces in the preface, he "is not one of those who suppose that a 'new economics,' materially modifying the existing science, is called for." Yet, like Clay and so many Englishmen, he shows a better understanding and appreciation of the dissenting point of view than most American economists do; and he draws from a wider variety of philosophical sources than most of us on this side of the ocean are familiar with. In spite of his classicism, he approaches the socialistic position on some questions rather closely, just as Clay does; and even where he does not finally agree with the socialistic conclusions, he shows an understanding and appreciation of that position which are unfortunately rather rare in the United States. Reading this book, one is impressed with the fact that even the works of such authorities as Ricardo and Mill, not to mention Marshall, are mines of economic philosophy that are too little known among economists.

The first part of the book, dealing with the scope and nature of economics, the difficulties in the way of its study, etc., is strongly suggestive of Marshall. The section dealing with production includes some of the best discussions of large-scale production, competition and combination to be found anywhere. Unlike Marshall, Professor Weston gives little space to value; and, while his theory is generally Marshallian, it differs in according the marginal concept considerable significance. For instance, the author states:

- (1) From the side of supply, value depends upon the marginal cost of production.
- (2) From the side of demand, value depends upon the marginal desirability.
- (3) And both marginal cost and marginal desirability tend to be measured by market price.

In another connection, Professor Weston states that "marginal cost of production determines the price of commodities"; and from this, in his discussion of wages, he slips into what looks much like a marginal productivity theory of wages: "As to this bargaining we may perhaps assume that, under modern conditions of collective bargaining, it is sufficiently effective on both sides to make marginal utility (the marginal

productiveness of each factor) an approximate measure of the price of that factor." In another place he states: "Marginal working capacity measures the wage the employer will pay," and "... the value of the workers whom it is 'just worth while' to employ governs the pay of all, assuming something like homogeneity among the workers."

It will be seen that this is far from Marshall's theory of value or of wages, but the author does not carry his marginal analysis on into the problem of interest. His treatment of distribution is brief, and lacks the logical consistency of Marshall's. Much space is devoted to the problems of money, banking and international trade and exchange; and everywhere the treatment is lucid and judicious.

On the whole, Professor Weston's textbook is certainly one of the best available; but unfortunately it is too definitely English in point of view and in its illustrative material to be of much use in American classes. Anyone who could write a book of similar quality and flavor with American illustrations for American students would do a useful piece of work.

JOHN ISE

University of Kansas

NEW BOOKS

BATSON, H. E., compiler. *A select bibliography of modern economic theory, 1870-1929*. (London: Routledge. 1930. Pp. xii, 224. 7s. 6d.)

BECKERATH, H. VON. *Der moderne Industrialismus*. Grundrisse zum Studium der Nationalökonomie, Band 11, I. (Jena: Fischer. 1930. Pp. vi, 454. Rmk. 20.)

CASPER, W. *Charles Davenant: ein Beitrag zur Kenntnis des englischen Merkantilismus*. Beiträge zur Geschichte der Nationalökonomie, Heft VII. (Jena: Fischer. 1930. Pp. viii, 140. Rmk. 7.50.)

CASTILLO, A. V. *Spanish mercantilism. Gerónimo de Uztáriz—economist*. (New York: Ad Press. 1930. Pp. ix, 193.)

DEMARIA, G. *Saggio sugli studi di dinamica economica*. Estratto dalla Rivista Internazionale di Scienze Sociali e Discipline Ausiliarie, anno XXXVIII, fasc. II-III. (Milan: Soc. Ed. "Vita e Pensiero." 1930. Pp. 63.)

DEMARIA, G. *Studi sull "attività" dell'imprenditore moderno*. (Milan: Soc. Ed. "Vita e Pensiero." 1929. Pp. 19.)

So far as the formation of the tastes of the consumer is concerned and the assumption of risks, both in production and in trade, the modern entrepreneur tends to become the principal factor in the economics of the market. In the sphere, however, which has seemed to be his own, that of determining the volume of production, the entrepreneur, far from determining the market, tends to be determined by it (or by the market for money).

R. F. F.

ELY, R. T., ADAMS, T. S., LORENZ, M. O. and YOUNG, A. A. *Outlines of economics*. 5th rev. ed. (New York: Macmillan. 1930. Pp. xviii, 868. \$3.)

This popular volume has undergone a very thorough revision. The authors have not hesitated to alter their treatise either in matters of doctrine or form where they believed improvement possible. The result is an exposition considerably modified by the discoveries of current research, yet maintaining "the characteristic atmosphere and scope" of former editions.

Undoubtedly the most notable change is the new treatment of rent. Boldly denying the adequacy of the modified Ricardian theory of former editions, the author of this chapter argues that there is a fundamental resemblance between land and capital, and shows by well chosen examples that land that is "economically utilizable" has, like other economic goods, a cost of production, disregard for which leads to grave misunderstandings, hardship and abuse. The phenomenon of falling land prices is examined with more than customary care and the conclusion is reached that if present tendencies in population growth and scientific discovery continue, land values will do well to maintain their present level.

The section devoted to value has been improved. The treatment of normal price is now less simple, but more realistic. A new section on valuation of property for purposes of taxation, rate-making, etc., calls attention to what has become one of the outstanding economic problems of this generation.

Other minor refinements abound in the book. A more logical presentation has been achieved by transferring certain chapters to new positions and by reorganizing the contents of others. The chapter on insurance, omitted from the fourth revised edition, reappears in revised form. As was to be expected, facts and figures have been brought down to date.

ALVIN S. TOSTLEDE

FAIRCHILD, F. R., FURNISS, E. S. and BUCK, N. S. *Elementary economics*. Vols. I and II. Rev. ed. (New York: Macmillan. 1930. Pp. xviii, 609; xiv, 663. \$2.50; \$2.75.)

The revised edition of *Elementary Economics* contains a number of notable improvements. The awkward arrangement of topics in the division devoted to the forces determining price has been corrected by treating marginal utility, with related subjects, and cost of production before discussing market price. This is perhaps the most important refinement in the revised edition. The new arrangement permits the student to familiarize himself with the nature of demand and supply before he is called upon to see how these price-determining factors operate. The addition of a section on mutually related prices also considerably enhances the pedagogical merits of this division of the book. Coming as it does at the conclusion of the discussion of prices, it affords a splendid opportunity to review the principles there encountered and to apply them to specific problems.

The discussion of agricultural rent is not as extended as in the former edition. The attempt to explain producer's surplus and rent as differences between marginal and average costs is abandoned, and the discussion of some of the more remote social consequences of diminishing returns is removed. Possible price changes wrought by alternative uses of land have properly been given more extended consideration. It is regrettable

that the same confusion regarding the relationship of marginal cost and price that marred the presentation in the first edition should be found repeatedly in the revised book. In all other respects the analysis and presentation of rent is excellent.

A few other changes deserve mention. In the price section one finds fewer graphs and more pertinent examples taken from actual business experience. The banking section takes account of recent developments in that field. The chapter on government industry presents additional examples and experience. Finally, the factual material in all parts of the book has been brought down to date.

ALVIN S. TOSTLEBE

FISHER, I. *The theory of interest as determined by impatience to spend income and opportunity to invest it.* (New York: Macmillan. 1930. Pp. xxvii, 566. \$6.)

JACOBSEN, J. *Technics of the production system.* 2nd ed. (Copenhagen, Denmark: Author, Vennemindevej 27. 1930. Pp. 97. 3s. 6d.)

KNIGHT, B. W. and SMITH, N. L. *Economics.* Vols. I and II. (New York: Ronald. 1930. Pp. x, 503; iii, 473-1019.)

This book is a carefully planned and excellently written teaching text. The chapters are so arranged that most of them constitute satisfactory assignments for the average classroom period, and at the end of each chapter numerous helpful "problems" and supplementary reading references are supplied. The two volumes are separately indexed, and paper and printing are all that could be desired. While it is unnecessary to describe the volumes in detail, it should be said that they comprise forty-five chapters covering the whole field of introductory theory and most of the important practical problems arising in modern economic society. There are also two good chapters on public finance. The theory presented is, in the main, familiar, although, as might be expected, arrangement, proportion and distribution of emphasis are distinctive. The discussion of the whole subject of production is especially noteworthy. Our authors show the influence of the modern emphasis on the institutional approach to economics and they freely acknowledge a real debt to Cooley and other writers of his school of thought. While tastes naturally differ with respect to texts, the reviewer believes that Messrs. Knight and Smith have produced one of the really good books in the general text classification. They deserve high praise for the clearness, consistency and orderliness which characterize their work.

E. E. AGGER

PRICE, H. T. *Volkswirtschaftliches Wörterbuch.* Teil II. *Deutsch-Englisch.* (Berlin: Julius Springer. 1929. Pp. x, 676. \$7.50.)

This small volume is the second part (German-English) of a dictionary of terms used in economics, the first volume of which (English-German) appeared from the press of the same publisher in 1926. Dr. Price, who is now associate professor of English at the University of Michigan, spent some years at the Weltwirtschaftliches Institut of Kiel, Germany, in the preparation of these two volumes.

This two-volume economic dictionary is unique, and meets a need. The English and German languages are the richest in the literature of economics, political science and sociology. To make these great literatures in either language intelligible to scholars who do not read them both readily is a service to scholarship. Dr. Price has succeeded in this respect.

The second part of the dictionary has been, as the compiler says in the preface, "an unconscionable time in appearing because the material to be sifted was so vast in bulk." He took into consideration the literature in Austria and Switzerland as well as that of Germany, also the new economic, political and social terms which came in with the World War, the revolutions and the subsequent inflation of currencies. He has included terms from law and business administration so that this German-English part is more than three times as large as the English-German volume. Dr. Price is a trained lexicographer, having worked for years with Sir James Murray on the Oxford dictionary.

Certain peculiarities strike the American at once. Dr. Price often uses the phrase or word current in England but less well known in the United States, *e.g.*, *frie ab hier* (page 1), *free on the wag(g)on*. Although he uses the British spelling in the last word, he makes a concession to Americans by placing one "g" in parenthesis. The words "*labo(u)r*," "*favo(u)r*," "*hono(u)r*" likewise regularly appear with a parenthetical "u." In fact a note on this difference in spelling appears in the introduction (page 10). American literature and usage are however widely recognized.

Critical comment on a dictionary is difficult because so much depends on the plan of the author. Certain outstanding features of this dictionary are to be commended. It supplies a modern English equivalent for hundreds of words and phrases in German social science literature—words which not even the largest German-English lexicons contain. Moreover, the compiler often quotes his source by volume and page so that one may consult the context for better connotation if necessary. The German-English part is a mine of information and includes foreign terms commonly used by German writers. It is more than a mere dictionary; in supplying dates, a short discussion of doctrines or movements, popular as well as classical phraseology, geographical data, statistics and other similar material, the volume becomes somewhat encyclopedic in nature.

English and American users will probably criticize this dictionary as incomplete. Scores of terms they seek will not be found. But this is to be expected. Dr. Price would never have been able to include in any one volume, certainly not in a handy one, a key to every word and phrase of a language so rich in philological inventiveness as the German. Perhaps he might have saved space to insert more technical words by omitting many common words, especially where he has given only one English equivalent, and that the common rather than scientific meaning, *cf.* *Konsul*, *Leben (n)*, *leben (v)*, *Ruin*, *realistisch*, *schlecht*, *souverän*, *sozialistisch*, etc. Banking terms seem less full than German writing in that field would lead one to expect. If fewer terms in marketing, public utilities, accounting, business law and similar applied fields in economics appear than Americans would like to see, it must be remembered that German writers have given less attention to these applied fields. Economic science owes a debt of gratitude to Dr. Price for this dictionary.

HARRY T. COLLINGS

- SPANN, O. *Die Krisis in der Volkswirtschaftslehre*. (Munich and Leipzig: Duncker & Humblot. 1930. Pp. 60.)
- . *Types of economic theory*. (London: Allen & Unwin. 10s. 6d.)
- VON WIESER, F. *Natural value*. (Translated by C. A. MALLOCH. (New York: G. E. Stechert. 1930. Pp. 243. \$4.)

Economic History and Geography

Income and Wages in the South. By CLARENCE HEER. (Chapel Hill, N.C.: University of North Carolina Press. 1930. Pp. 68. \$1.00.)

Since the author of this little book does not claim novelty for his findings, and since he has not collected any new material, but has drawn on only a few very obvious sources, the reader will inquire, Are the findings true? and, Are they significant?

The author centers his attention on ten Southern states, selected apparently according to no fixed principle but referred to throughout as "the South," and compares them with the rest of the country in respect of wages and income. At the outset, then, he groups himself with those who wish to perpetuate in economic literature the concept "the South." This notwithstanding the fact that the area is not homogeneous, that its boundaries are hazy, and that the characteristics usually associated with it in the past become every day less distinctive of it. Finally, if "the South" is to be compared with anything, why not with some geographical division which has at least a few claims to comparability instead of with this vast undifferentiated "rest of the country"?

What characterizes "the South"? the author asks; and he answers: predominance of agriculture, farm tenancy, and low average of wealth. Having shown, then, that the South has a low average of wealth, he takes some pains to prove that it is an area of low money incomes. This conclusion by itself cannot be considered significant. Money wages are not an accurate measure either of real wages or of labor costs. The author admits this point and dismisses it with the remark that where there is so much disparity in money income there must be considerable difference in real income, and that it is a "reasonable supposition that Southern labor costs . . . are somewhat lower than elsewhere." This method of procedure can hardly be called scientific. In the last ten years the first conclusion has been directly challenged for the textile industry by two separate private investigators; while the second conclusion could by no means be accepted in the absence of more specific data than the author presents.

One reason (we read) why Southern incomes are low is that wages are low. This seems obvious. But why are wages low? Because most of the workers are in low-wage industries. Check! And what is a low-

wage industry? Well, for one, the textile industry. Look at Massachusetts: "The average annual earnings of its textile workers, as indicated by the *Census of Manufactures*, fell short of the average earnings of other factory wage-earners within the state by approximately 24 per cent in 1927." The author evidently looks on the differential in Massachusetts as something independently determined. But anyone knows that the level of Massachusetts textile wages has been profoundly affected by the level of Southern textile wages. The author's hypothesis is thus not to be tested by such means. The alternative hypothesis that wages the country over are low in the textile and lumber industries because these industries are well-developed in the South, is at least as plausible.

The author finds that per capita money income in the South is for the agricultural classes about one-half, for common labor in general from 50 to 65 per cent, for semi-skilled employments from 65 to 85 per cent, and for skilled mechanics from 75 to 100 per cent of the money income received in like occupations in the rest of the country. The conclusion that the difference shows a tendency to become progressively less with each advance in the grade of skill is significant but not exactly new. In detail, however, the figures will not bear examination. The categories "skilled," "semi-skilled" and "unskilled" serve in this connection to confuse rather than to clarify. In the category "common labor," which if properly defined is useful for some purposes, the author should have included section men and maintenance of way laborers, whose wage in the South is (as he shows on p. 48) 80.7 per cent of the wage for the same occupation in the rest of the country.

The author believes that the Negro "with his low standard of living" is an "obvious element to be considered." Yet in his discussion of teachers' salaries he makes this extraordinary statement: "It was not possible to eliminate the salaries of Negro teachers in computing the Southern average." We are led to inquire, what scientific purpose would have been served by "eliminating" the salaries of Negro teachers? Also, the author does not seem to have been aware that when he introduced (by the colored entrance) the element of standard of living into his discussion of the determination of income, he was imperiling the logical consistency of his main deduction, which is: Low incomes in the South are primarily due to the low productivity of the South's principal industry—agriculture.

HORACE B. DAVIS

New York City

Indian Economic Life: Past and Present. By BRIJ NARAIN. (Lahore: Uttar Chand Kapur & Sons. 1929. Pp. xxiii, 578. Rs. 8.)

The Economic Development of India. By VERA ANSTEY. (New York: Longmans Green. 1929. Pp. x, 581. \$8.50.)

Indian Economic Life is a collection of essays on Indian economic problems, past and present, mostly revisions of articles and a collection of essays previously published. Those relating to the past deal with the conditions of various classes of the population—laborer and artisan, tiller of the soil, merchant—and with Indian shipping and famines in pre-British days. Those relating to the “present” deal with prices from 1861 to 1928; currency and the monetary standard from 1835 to 1925; population increase from 1872 to 1921; other population factors, such as age, sex, occupation and rural-urban distribution, birth and death rates, and the mean duration of life; improvement of agriculture and the influence of irrigation and coöperative credit; foreign trade, industrial development and railway management; and the Indian money market, public finance and taxable capacity.

Throughout the book two main currents of effort are visible—to show that Indian economic phenomena are in accordance with the basic economic principles valid elsewhere, and to refute various contentions of English writers and the reports of English-manned official commissions. Brij Narain buttresses his arguments, especially those referring to the Mogul period, by numerous references to original sources; he shows an understanding of theoretical principles and their application, and an ability to distinguish between the use and the abuse of statistical methods. While the “apologists” he is opposing are in reality less biased and more nearly correct than might be gathered from his attacks, those attacks are for the most part concentrated on vulnerable arguments.

The Economic Development of India, written by a lecturer of the London School of Economics whose husband was for several years principal of the Sydenham College of Commerce in Bombay, is a much more systematic and comprehensive treatise. It is an attempt to present “a synthetic impartial view of the recent development, present position and main problems of Indian economic life.” This purpose has been accomplished remarkably well.

The chapters are arranged to give a cross-section view, packed with detail, of the existing socio-economic structure, with the relevant facts of Indian industrial history and opposing points of view of controversial issues deftly interwoven therein. The topics discussed include: natural resources, population and vital statistics, the economic aspects of social customs and public health, transport and communications, agricultural problems and the coöperative movement, the development of large-scale industry, industrial and commercial policies, labor legislation and or-

ganization, foreign trade, the financial system, banking and currency and the prosperity of the people.

Some of the author's conclusions of most interest follow. While there are signs of social disintegration, hastening the transition from a mediæval to a modern economic organization, certain religious ideas and conventions, and the rigid social stratification and conservatism based upon those ideas and conventions, still pervade every sphere of life and limit economic development at every step. The tendency continues for population to increase up to the margin of subsistence; the general standards of health and efficiency remain exceptionally low; primitive means of production continue to prevail; the workers in the organized industries live under cruel conditions; and, while improvement can be traced in the general standard of life, that standard remains pitifully low. The bulk of the population is still over-concentrated upon the land; and industrial development is in need of stimulation—an unbalanced and arrested development for which governmental policies of recent years cannot be deemed responsible. There are three major obstacles to prosperity: the tendency for population to increase, the uneconomic outlook of the people, and the lack of coöperation between the government and the governed.

CLARK WARBURTON

Emory University

NEW BOOKS

- ACKERMAN, C. W. *George Eastman*. (Boston: Houghton Mifflin. 1930. Pp. xviii, 522. \$5.)
- ARTMAN, C. E. *Industrial structure of New England*. Commercial survey of New England, Part I. (Washington: Supt. Docs. 1930. Pp. xii, 591. \$1.30.)
- BARROWS, D. P. and WILLIAMS, D. R. *Comments on the political and economic status of the Philippines*. (San Francisco: San Francisco Chamber of Commerce. Pp. 30.)
- BERDROW, W., editor. *Krupp: a great business man seen through his letters*. Translated by E. W. DICKES. (New York: Dial Press. 1930. Pp. 418. \$5.)
- BRON, S. G. *Soviet economic development and American business: results of the first year under the Five-Year Plan, and further perspectives*. (New York: Liveright. Pp. 160. \$1.50.)
- BROWN, P. S., editor. Part I. *The second Industrial Revolution and its significance*. Part II. *Prosperity reserves of public works*. Part III. *Some social aspects of mental hygiene*. Annals, vol. cxlix, no. 238. (Philadelphia: American Academy of Political and Social Science. 1930. Pp. iv, 224. \$2.)
- CLARK, V. S. and associates. *Porto Rico and its problems*. (Washington: Brookings Institution. 1930. Pp. xxxv, 707. \$5.)
- COLE, H. E. *Stagecoach and tavern tales of the Old Northwest*. Edited by L. P. KELLOGG. (Cleveland: Arthur H. Clark Co. \$6.)

CONDLIFFE, J. B. *New Zealand in the making: a survey of economic and social development.* (Chicago: University of Chicago Press. 1930. Pp. 525. \$5.)

CONDLIFFE, J. B., editor. *Problems of the Pacific, 1929.* (Chicago: University of Chicago Press. 1930. Pp. xv, 697. \$5.)

This bulky but not unattractive volume contains a summary of the discussions at the third conference of the Institute of Pacific Relations, held at Kyoto and Nara last autumn, together with 15 monographs and documents dealing with subjects considered at that gathering and some 60 pages of appendices relating to the organization and proceedings of the Institute. In the summary Dr. Condliffe has condensed into a connected and readable narrative of 244 pages the discussions at 44 round-table meetings and 8 general sessions. These cover 7 major groups of topics: "The machine age and traditional culture," "Food and population in the Pacific," "Industrialization in the Pacific countries," "China's foreign relations," "China's financial reconstructions," "The problems of Manchuria," and "Diplomatic relations in the Pacific."

This narrative cannot reproduce the color of the debates and the dramatic interludes that occasionally punctuated them, but it probably gives the average reader a more comprehensive idea of the opinions and data presented at the Conference than was obtained by the members attending any one of the four round-tables among which the delegates were distributed. The monographic section, which forms the bulk of the volume, contains a wealth of factual material relating to the Far East, much of which is of an economic character and is not as conveniently available elsewhere. Value and interest are added to the book by the facts that its contributors include representatives from all the Pacific countries, except Soviet Russia, whose problems are discussed, and that the delegates were entirely unhampered by diplomatic or other official restrictions in expressing their opinions.

From the standpoint of international relations the most interesting discussions at the Conference centered on the Manchurian question. The debates on this subject seem to have been conducted frankly and in good spirit by the delegates of the powers directly concerned. To the economist the statistical monographs upon Manchuria, the studies of the migration of Chinese farmers into Asia's northeastern wheat belt and of the future of wheat growing in Australia, and the special reports upon China's cotton industry, foreign trade, and tariff policy, afford well documented surveys of significant and rapidly changing phases of the world's economic life. To the westerner they also give some measure of the progress of economic thinking in the Orient.

The Institute of Pacific Relations is characterized in the volume as "a venture in adult education rather than unofficial diplomacy." The commendable promptness with which its proceedings have been given to the public indicates that it aspires also to be an organization for practical service rather than for the academic compilation of yesterday's records.

VICTOR S. CLARK

COUCH, H. N. *The treasures of the Greeks and Romans.* (Menasha, Wis.: Banta Pub. Co. 1929. Pp. 11. \$2.50.)

In this monograph Mr. Couch has collected the ancient evidence, archaeological and written, for treasures and other depositories of valuables in

the Greek and Roman world. After a careful examination, in which he displays a wise conservatism, of the various derivations that have been proposed for the word *thesauros*, he proceeds to discuss at some length the *tholos* type of structure, used for granaries, sepulchres, and treasuries. There follow chapters on the Greek temple treasuries, especially those at Athens, and on the treasuries of Delphi, Olympia, and Delos. The last two chapters are devoted to Roman treasuries, and a number of allied topics are also touched upon briefly.

Mr. Couch is very familiar with the literature of his subject; and his numerous footnotes are accurate and in general judicious. Occasionally he attempts to prove too much. For example, his remarks on beehives and prisons and their possible connection with treasuries (pp. 43-50) seem fanciful and unconvincing. All that needed to be said on these matters could have been condensed into two pages. In points of details Mr. Couch now and then lapses from strict accuracy. Thus on page 48 he is not entitled to draw any conclusion from the fact that *demosion* is used by Thucydides to mean "prison" and by Demosthenes to mean "treasury." A glance at the new edition of Lidell and Scott's *Greek Lexicon* shows that the same word is used by Greek writers of the classical period to signify "the state" and "a public building." His remarks (p. 81 ff.) on the *fiscus* are rather incomplete; the reader receives no hint that a single imperial treasury was probably not instituted till the time of Claudius. On pages 83 and 84 Mr. Couch invokes Philoxenus as an authority; but there is no gloss *favissæ* in the Philoxenus glossary, and Mr. Couch's reference in footnote 7 on page 83 is to me unintelligible. Further, when he says on the same page that Placidus is much later in date than Festus and A. Gellius, he appears to be unaware that *favissæ* occurs in the "Shorter Glosses of Placidus" which, as W. M. Lindsay has shown (*Journal of Philology* 34, 255 ff.), contain valuable material going back to Roman Republican authors. What authority is there for speaking of *ærarium privatum* (p. 82)? Either the *res privata* or the *patrimonium Cæsaris* appears to be meant. The following *errata* may be noted: the beginning of lines 19 and 20 on page 22 and the ends of lines 18 and 19 on page 33 have been mixed up by the printer with slightly comic results. On page 29 line 1 *double entente*, though it might be *cordiale*, should nevertheless be *double entendre*!

In the main Mr. Couch's book is a careful and very competent piece of work, which those working on Greek and Roman economic history will find very serviceable. It is to be hoped that the author will continue his researches, more particularly in the field of ancient finance, where much still remains to be done.

M. L. W. LAISTNER

DARLING, M. L. *Rusticus loquitur, or the old light and the new in the Punjab village*. (New York: Oxford Univ. Press. 1930. Pp. xiv, 400. \$6.)

DEMARIA, G. *La situazione economica in Italia*. Reprinted from *Rivista Internazionale di Scienze Sociali*. (Milan: Soc. Ed. "Vita e Pensiero." 1929. Pp. 52.)

The agricultural, industrial and commercial conditions in Italy in 1928 are compared with those of the period 1923-27, which includes a com-

plete business cycle. A number of statistical compilations are presented dealing particularly with the balance of trade and the movement of gold. The general conclusion reached is that, while inflation had definitely come to an end, a condition of normal trade had not, by the end of 1928, arrived.

R. F. F.

MASTER, K. *Vom Rubel zum Tschetwonjez. Zur Geschichte der Sowjet-Währung.* (Jena: Fischer. 1930. Pp. viii, 316. Rmk. 16.50.)

FISCHER, G. *Aus zwei Jahrhunderten Leipziger Handelsgeschichte, 1470 bis 1650. Die kaufmännische Einwanderung und ihre Auswirkungen.* (Leipzig: Felix Meiner Verlag. 1929. Pp. xvi, 539. RM. 15.)

GITSKELL, H. T-N. *Chartism: an introductory essay.* (New York and London: Longmans, Green. 1929. Pp. vi, 89. 75c.)

This recent addition to the series of booklets published by the Workers Educational Association maintains in every respect the high standard established for the series. Although it constitutes a part of a program of instruction for the working classes, this volume, like the others in the series is singularly free from partisanship and from bias of doctrine. The genesis of the Chartist movement is sketched with unusual felicity of statement and with conspicuous balance of judgment in the appraisal of the various elements that entered into this working class agitation. The chapters on the Charter and the Convention represent a careful study of the documentary materials and are especially successful in dealing with the changing motives and objectives that grew out of the curiously divergent elements that were involved at that stage. A moderate view is adopted throughout which makes events more intelligible than they are in some of the longer accounts. The temptation to overrate the explicit consequences of the movement is successfully resisted. The concluding chapters thus afford an especially discriminating account of radical and working class sentiment in the forties and fifties. In short, this little volume is a much more substantial contribution to history than the modesty of its appearance might lead one to suspect.

ABBOTT PAYSON USHER

GERIG, B. *The open door and the mandates system. A study of economic equality before and since the establishment of the mandates system.* (London: Allen & Unwin. 1930. Pp. 236. 10s.)

HART, A. B. and SCHUYLER, W. M., editors. *The American year book: a record of events and progress, year 1929.* (New York: American Year Book Corp. 1930. Pp. xx, 884.)

HEBARD, G. R. *Washakie: an account of Indian resistance of the covered wagon and the Union Pacific Railroad invasions of their territory.* (Cleveland: Arthur H. Clark Co. 1930. Pp. 400. \$6.)

HICKS, F. C., editor. *High finance in the sixties. Chapters from the early history of the Erie Railway.* By CHARLES F. ADAMS, JR., HENRY ADAMS, ALBERT STICKNEY, GEORGE T. CURTIS and JEREMIAH S. BLACK. (New Haven: Yale Univ. Press. 1929. Pp. 410. \$5.)

This is a reprint of the well-known essays by Charles Francis Adams and Henry Adams on "A chapter of Erie," "The New York gold conspiracy," and "An Erie raid," with additional material about equal in bulk to the original contributions. The additional material consists of a direct personal attack upon David Dudley Field, counsel for Gould and Fisk, by

Albert Stickney, reprinted from the *North American Review* of April 1871; a lengthy review of the facts in the litigation relating to the Albany & Susquehanna Railroad, and a defense of Mr. Field against the Stickney charges and the implications of Adams' article upon "The Erie raid" by George Ticknor Curtis; a second summary of the same facts by Jeremiah S. Black, also favorable to Field; and a final rejoinder by Mr. Stickney. The Curtis opinion was originally printed in 1871; the Black and the second Stickney contribution are taken from the *Galaxy* of March and October, 1872. Curtis wrote for and at the request of Field; Black had been Field's associate and Stickney Field's opponent in certain litigation now connected with the Erie or the Albany & Susquehanna Railroads so that personal feelings were probably involved; but their views can probably be accepted as independent opinions upon the facts to which Adams and others had called attention.

The reprint is important because the original Adams essays are becoming difficult to obtain, and because the other side of the controversy has always been comparatively inaccessible. There is danger in writing too well; and it may be that the literary excellence of Adams' denunciation of Gould and Fisk has caused his side of a contentious matter to be preserved, while the other side has been forgotten. On the other hand, it must be admitted that people are less interested in Field's code of ethics than they were sixty years ago, and that the unsettled questions with respect to Gould relate rather to his career as a manager of western railroads than to his financial and legal activities in New York. The present volume has a useful list of references to biographical works upon the authors of articles reprinted and principal characters therein referred to, and pictures of Drew, Vanderbilt, Gould, Fisk, and Field.

STUART DAGGETT

- HUNTINGTON, C. C. and CARLSON, F. A. *Environmental basis of social geography*. (New York: Prentice-Hall. 1930. Pp. 499. \$4.)
- INNIS, H. A. *The fur trade in Canada: an introduction to Canadian economic history*. (New Haven: Yale Univ. Press. 1930. Pp. 444. \$5.)
- KERNER, R. J. *Social sciences in the Balkans and in Turkey: a survey of resources for study and research in these fields of knowledge*. (Berkeley: Univ. of California Press. Pp. 137. \$1.50.)
- KNOWLES, L. C. A. and KNOWLES, C. M. *The economic development of the British overseas empire*. Vol. II. *Comparative view of Dominion problems, Canada*. (London: Routledge. 1930. Pp. xxiv, 616. 12s. 6d.)
- LIONBERGER, I. H. *The annals of St. Louis, and a brief account of its foundation and progress, 1764-1928*. (St. Louis: Author. 1929. Pp. 71.)
- MARTI, O. A. *Economic causes of the Reformation in England*. (New York: Macmillan. 1929. Pp. xxi, 254.)
- MARTIN-SAINT-LÉON, E. *Les sociétés de la nation: étude sur les éléments constitutifs de la nation française*. (Paris: Editions Spes. 1930. Pp. 415. 49 fr.)
- MUN, T. *A discourse of trade from England unto the East-Indies, 1621*. Reproduced from 1st ed. (New York: Facsimile Text Soc. 1930. Pp. 58.)

- NEALE, L. M. and KROEBER, A. L. *Textile periods in ancient Peru*. Univ. of California Pubs. in American archaeology and ethnology, vol. xxviii, no. 2. (Berkeley: Univ. of California Press. 1930. Pp. 80. 60c.)
- PHILIPS, A. *Economic aspects of reparations and inter-allied debts*. (Leiden: S. C. Van Doesburgh. 1930. Pp. 200.)
- PRIME, A. C., compiler. *The arts and crafts in Philadelphia, Maryland and South Carolina, 1721-1785; gleanings from the newspapers*. (Topsfield, Mass.: Walpole Soc. 1929. Pp. 344. \$5.)
- RENAUD, P.E. *Les origines économiques du Canada: l'oeuvre de la France*. (Mamers: Gabriel Enault. 1928. Pp. 488.)

Annotated below under Vignols.

- SAHA, K. B. *Economics of rural Bengal*. (Calcutta: Chuckerverty, Chatterjee and Co. 1930. Pp. viii, 296. Rs. 8.)

Though this regional survey is a summary of known facts and conditions, rather than a result of special research, it is a well-written discussion of economic conditions in rural Bengal. Physical features, crops, standard of cultivation, land tenure system, fragmentation of holdings, agricultural finance and indebtedness, rural industries, trade and transport, and the density of population are the chief topics discussed.

Among the most striking facts mentioned are the density of agricultural population, which is one and one-half persons per acre, or 960 per square mile of cultivated land; the fragmentation of holdings, the average being less than two acres; the extent of indebtedness, in which nearly half the families are involved; and the high cost of marketing in some of the rural industries. An extreme example of the last is a fishery with an annual catch worth Rs. 80,000, of which Rs. 1,000 goes to the landlords, Rs. 20,000 to the fishermen, and all the rest to the middlemen.

With the addition of population pressure, the agricultural problems of Bengal are quite similar to those in the southern United States.

CLARK WARBURTON

- SALIN, E. *Die deutschen Tribute*. (Berlin: Reimar Hobbing. Pp. 250. R.M. 6.)
- SHUMWAY, H. *I go South: an unprejudiced visit to a group of cotton mills*. (Boston and New York: Houghton Mifflin. 1930. Pp. vi, 90. \$2.)
- SMITH, N. S. *Economic control: Australian experiments in "rationalisation" and "safeguarding"*. (London: P. S. King. 1929. Pp. xv, 306. 15s.)

Now that *Laissez-faire* is dead, and its epitaph has been written, we need no longer debate "Should the community intervene?" but merely ask "How and with what purpose?" Mr. Smith has tried to answer this question. To his task he brings some experience in business, some study of economic theory in London, and some months of observation in Australia.

He first surveys the need for, and scope of economic control over production, distribution, and consumption, in the interest of community economic welfare. In the field of production this involves the overcoming of obstacles created by inertia, ignorance, anti-social preferences, and the tendency towards monopoly. In the field of distribution, control must strive to "ensure that the product of industry is divided and consumed according to the best interests of the community," which seems to mean a national minimum standard of life for all and, beyond that, payment "ac-

cording to social economic worth." Control of consumption is scarcely discussed at all. "This branch of economics is relatively unexplored" says Mr. Smith, and he shows no desire to pioneer.

Having stated the aims of control, Mr. Smith then surveys methods, chapters which are little more than a catalogue of expedients and of trite platitudes on everything in general. The ninety pages devoted to these preliminary discussions are largely wasted; for they are too obvious to be of value to economists and too vague to be of worth to the general reader. And they steal valuable space from the main part of the book which is devoted to a survey of the aims, methods, and results of Australian control.

Such a task cannot be satisfactorily accomplished in 200 pages, except by a rigorous exclusion of all but a few sample activities. Instead of doing this, our author has ranged over the whole field—the public ownership of some industries, the public control of sugar production, the partial control of nearly all industries by tariff, bounty, labor legislation, and wages regulation, the control of primary production through compulsory coöperation, the attempted control of monopolies, and the encouragement of the spread of economic knowledge. Some forty different activities are dealt with, and consequently not one of them gets adequate study. At times the description is good; but comment is nearly always too vague and indefinite, or is entirely missing, as for instance in the three pages devoted to land resumption and land taxation, or the page-and-a-half given to group settlements, or the similar space devoted to the Commonwealth Bank. Suggestions for solutions of problems are equally unsatisfactory. Beyond the living wage basis "is the need for insistence upon some form of payment according to social economic worth. . . . Scientific rate-fixing is the solution" (page 187). Or again, "Scientifically arranged, (immigration) is recognized as being of the greatest benefit to industry" (page 196). A country wrestling with drought and depression will get little light from such advice.

Yet, despite these faults, two main conclusions emerge from the book. The first is that Australia, without knowing it, has been working along lines which are in accord with modern economic theory as interpreted by Mr. Smith. Placed against a background painted in colors of maximum wealth and welfare, the Australian experiments do not seem incongruous, the fragments fit roughly together, and the results are not unsatisfactory. The second conclusion is that the stage of joyous creation and experiment is being followed by one of criticism and amendment. Australia no longer light-heartedly establishes an arbitration court, or increases its tariff, or sets up a new state enterprise, or lets its states borrow as much as they want, without taking thought of tomorrow. The exuberance of adolescence, with its slogan "All things are possible!" has given place to the sobriety of manhood and to a consciousness of limitations and need for careful planning. But while the pace is slower and the step more cautious, Mr. Smith seems to think that the continent is on the right track and its nose is pointed the right way.

H. HEATON

TAYLOR, R. B., editor. *Lands and peoples: the world in color. Including a special survey of the League of Nations*, by GRAHAM SPRY. Vols. I-IV. (Toronto: Grolier Society. London: Educational Book Co. 1929.)

THOMAS, L. O. *The Province of New Brunswick, Canada: its natural resource and development.* (Ottawa: H.M. Stationery Office. 1930. Pp. 167.)

ROUTAIN, J. *The economic life of the ancient world.* (New York: Knopf. 1930. Pp. xxvii, 361. \$5.)

VIGNOLS, L. *La mise en valeur du Canada à l'époque française d'après la thèse de M. P. E. Renaud.* (Paris: Marcel Rivière. 1929. Pp. 76.)

The volume by M. Renaud (see above) presents a cross section of the economic development of New France in the area which is roughly the present province of Quebec. He includes a survey of the geographic background, the culture of the Indians, the fishery, the fur trade, mines, and a study of migration, settlement, agriculture, industry and trade (la circulation). M. Leon Vignols has published, as a reprint, his review of the volume in the *Revue d'Histoire Economique et Sociale*. The review presents running comments on the various sections of the book and points out the obvious defects of the extensive bibliography, the difference between the French Canadian and the French language, and the numerous printer's errors. He suggests the serious limitations of the book which follow a disregard for continual reference to dates and details. Altogether the next edition, which M. Vignols suggests, would benefit materially through the incorporation of his advice.

But M. Vignols does not emphasize sufficiently the more fundamental weakness of the book which can scarcely be corrected in a new edition, at least not in the near future. M. Renaud criticizes the earlier volume by Salone and the work of other writers chiefly on the grounds that they emphasize too strongly certain phases. His work is an advance on that of Salone and others inasmuch as it attempts a wider approach and an approach based on a topical rather than a chronological arrangement. But the defects follow from precisely the width of the approach. It becomes impossible for one author to maintain an even balance because of the wealth of the material and the lack of research in the field. M. Vignols, for example, notes the inaccurate, and he might have noted the inadequate, treatment of the fisheries and of the fur trade. One cannot fail to note the lack of evolutionary interpretation in the neglect of dates and the bewildering masses of figures which appear as footnote references. They contrast strikingly with the author's valuable discussions on the earlier charters, on population, and on the guilds. The author has been overwhelmed with his material and he has not even been able to grasp adequately the support available from other studies. He has drawn heavily on Shortt and on Munro but he might have used the work of Fauteux and others to greater advantage. These criticisms are perhaps unfair to the author, since they imply a lack of research on the economic history of New France. All students in the future will bless the author for the mass of material which he has made available and the numerous references which he has placed at their disposal. The next advance in the field must come from a combination of the advantages of the work of Salone and of Renaud.

H. A. I.

WARNER, W. J. *The Wesleyan movement in the Industrial Revolution.* (New York: Longmans Green. 1930. Pp. 309. \$5.)

- WHITBECK, R. H. and FINCH, V. C. *Economic geography*. 2nd ed. (New York: McGraw-Hill. 1930. Pp. 565. \$3.50.)
- WINTER, N. O. *Brazil and her people of today: an account of the customs, characteristics, amusements, history and advancement of the Brazilian people and the development and resources of their country*. Rev. ed. (Boston: L. C. Page & Co. 1929. Pp. xii, 398.)
- YUGOFF, A. *Economic trends in Soviet Russia*. Translated by EDEN PAUL and CEDAR PAUL. (New York: Richard R. Smith, Inc. London: Allen & Unwin. 1930. Pp. 349. \$4.25.)
- Argentina land of bounty*. (New York: International Tel. and Tel. Corp. Information Dept. 1930. Pp. 34.)
- Blue book of southern progress, 1930*. (Baltimore: Manufacturers Record Pub. Co. 1930. Pp. 290.)
- Credit position of Chile*. Bull. no. 35, suppl. to Bull. no. 13. (New York: Institute of International Finance. 1930. Pp. 18.)
- Credit position of Italy*. Bull. no. 36, rev. of no. 4. (New York: Institute of International Finance. 1930. Pp. 30.)
- Credit position of Peru*. Bull. no. 34, suppl. to Bull. no. 18. (New York: Institute of International Finance. 1930. Pp. 16.)
- The international financial position of the United States*. (New York: National Industrial Conference Board. 1929. Pp. xx, 276. \$5.)

This is an excellent and most useful study on a subject in which there is a great amount of interest, but on which there is an almost equally great dearth of scientific discussion. The author, Mr. Ralph A. Young of the Conference Board's Research Staff, set himself the task of analyzing the recent international financial relations of the United States, of tracing the effects of these relations upon the domestic financial, industrial, and commercial structure, and of indicating the possible character of America's future international financial relations. He has carried out this task with admirable thoroughness and clarity.

The author describes the manner in which the United States became transformed, during the war and the post-war periods, from the status of an international debtor, in 1915, to the amount of about 3 billion dollars net, to that of international creditor, in 1928, to the amount of almost 15 billion dollars net. The process of this transformation really began at the end of the nineteenth century, "when American investments abroad began to increase more rapidly than foreign investments in the United States." It was greatly accelerated during the war and since. However, in recent years there has also been an increase in foreign investments in the United States, with the result that, as of the end of 1928, the United States was a creditor to the amount of 22.3 billion dollars, and a debtor to the amount of 7.4 billions.

These figures are necessarily approximate. They are, however, based on a detailed and careful examination of the best available data concerning America's balance of payments and her creditor and debtor position, on government as well as private accounts, long-term and short-term. This material is presented in chapters 2-5 and 8. In the remaining chapters the author shows the influence on the American finance of such international factors as the huge influx of gold which took place during the post-war years; discusses the rôle of the federal reserve system in the expansion of credit in the United States and its consequent share in the stimulation

of American capital exports; and analyzes the consequences of international capital movements for the American foreign trade.

The author draws the conclusion that "extraordinary circumstances, only a few of which may be regarded as permanent factors, afforded the basis for the post-war developments." In the light of this conclusion, the following summary prognosis for the future is quite understandable:

Owing to the unusual influences operating to expand America's international creditor position since 1920, there seems little reason to anticipate an equally rapid expansion in the future. . . . The assumption of a permanent rôle as a nation predominantly in a creditor position, however, may be predicted. . . . The present net creditor position could easily be maintained or even gradually increased.

The inevitable consequence of this, argues the author, is bound to be a slow, perhaps, but nevertheless certain adjustment of the foreign merchandise trade of the United States, in the course of which "exports and imports may be expected to approach a balance with an eventual excess of imports."

Of course, there is little in the author's conclusions that is new and startling. But his thorough and painstakingly-documented statistical and analytical verification of them is most welcome. An abundance of very good charts helps the reader greatly in following the statistical material.

LEO PASVOLSKY

Japan: the twenty-ninth financial and economic annual, 1929. (Tokyo: Govt. Printing Office. Pp. vi, 264. Yen 2.35.)

Official yearbook of the Commonwealth of Australia, 1929. No. 32. (Canberra: Commonwealth Bureau of Census and Statistics. New York: Commissioner General for Australia, 25 Broadway. 1929. Pp. xxxii, 1074.)

A picture of world economic conditions at the beginning of 1929. (New York: National Industrial Conference Board. 1929. Pp. xiv, 253. \$2.50.)

This is the second attempt made by the National Industrial Conference Board to present, within the scope of a small volume, a broad survey of world economic conditions. The first was made in 1928, as of the beginning of that year. While the 1929 volume is a distinct improvement on its predecessor, it is still far from satisfactory.

Part I of the 1929 volume is a survey prepared by the Board itself and covering a number of general problems of world significance which were prominent during the year 1928, as well as outstanding developments in 12 European countries, 5 Latin American countries, 2 Asiatic countries, Canada, Australia, and the United States. While the compilations are interesting and suggestive, the material contained in them can scarcely be considered adequate. It adds very little to what a general reader of current economic publications already knows. The reading of the individual sections is rendered difficult by the fact that every time a figure is mentioned in any foreign currency, it is immediately converted into dollars. On page 20, for example, there are no fewer than 21 conversions of pounds sterling into dollars; on pages 26-27, no less than 15 conversions of reichsmarks into dollars occur in one paragraph. Since a table of conversion is given at the end of the volume, one would hardly think that all values expressed in foreign currencies should be immediately followed by their equivalents in dollars.

Part II of the volume is entitled, "Special reports received by the National Industrial Conference Board, Inc., from its foreign correspondents by April, 1929." Here we have 17 papers, written by a variety of authors from 12 countries, dealing with the general economic condition of the given country or with specific topics, such as industry, trade, commercial policy, etc. The papers are of a very uneven quality. They range all the way from very short and general statements, containing nothing but a recital of statistics easily obtainable elsewhere, to really excellent surveys, such as M. Georges Theunis's report on "The relationship between finance and industry in Belgium," or Professor André Siegfried's essay on "The development of the French tariff policy after the war."

On the whole, what the volume lacks is systematic organization and interpretation of material. There is a good deal of repetition as between the Board's own survey and the "Special Reports," and there are important omissions. For example, there is practically no discussion in the volume of the balance of payments for any of the countries surveyed. No attempt is made to show the interrelation of various economic factors in the situation confronting the given country during the year under review. The National Industrial Conference Board's idea of an annual publication giving a survey of the world's economic conditions is an entirely worth while one; but if it is really to fill a much felt need, such a publication would have to be much more thoroughly prepared than the two samples so far produced.

LEO PASVOLSKY

A picture of world economic conditions at the beginning of 1930. No. IV (New York: National Industrial Conference Board. 1930. Pp. xi, 190. \$2.50.)

La République Polonaise: atlas statistique. (Warsaw: Office Central de Statistique de la République Polonaise. 1930. Pp. xv, tables 42.)

Year book of the state of Indiana for the year 1929. (Indianapolis: State House. 1930. Pp. vii, 1285.)

Agriculture, Mining, Forestry, and Fisheries

NEW BOOKS

BERCAW, L. O., compiler. *California: an index to the state sources of agricultural statistics.* Part I. *Fruits, vegetables and nuts.* Agric. econ. bibliography no. 31. (Washington: Supt. Docs. 1930. Pp. xlii, 342. mimeographed.)

FIEDLER, R. H. *Fishery industries of United States, 1928.* Bureau of Fisheries doc. 1067. (Washington: Supt. Docs. 1929. Pp. 225. 35c.)

FILHOL, J. *Le pétrole: son industrie, son commerce, son rôle dans la politique des peuples.* (Paris: Les Editions Pittoresques. 1929. Pp. vi, 207.)

FRANK, A. D. *The development of the federal program of flood control on the Mississippi River.* (New York: Columbia Univ. Press. 1930. Pp. 269. \$4.25.)

GARRATT, G. T. *The organisation of farming.* Vol. I. *Production.* (Cambridge, England: W. Heffer & Sons. 1930. Pp. xvi, 162. 6s.)

HANFLAND, C. *Die amerikanische Fleischindustrie, umfassend Viehzucht, Handel, Schlachthausbetrieb, Verwertung von Fleisch und Nebenprodukten.* (Leipzig: R. M. Lippold. 1929. Pp. 614.)

- AVEMEYER, L., editor. *Conservation of our natural resources, based on Van Hise's The conservation of natural resources in the United States.* (New York: Macmillan. 1930. Pp. xvii, 551. \$4.)
- OPKINS, C. R. *Petroleum refinery statistics, 1928.* U. S. Bureau of Mines Bull. 318. (Washington: Supt. Docs. 1930. Pp. iv, 123. 25c.)
- UTCHINS, W. A. *Commercial irrigation companies.* U. S. Dept. of Agric. tech. bull. no. 177. (Washington: Supt. Docs. 1930. Pp. 40. 10c.)
- INSON, O. M., and TURNER, H. A. *The old plantation Piedmont cotton belt: a preliminary report.* (Washington: Supt. Docs. 1930. Pp. 32, mimeographed.)
- acy, M. G., compiler. *Agricultural economics: a selected list of references.* Agric. econ. bibliography no. 1, revised. (Washington: Supt. Docs. 1930. Pp. 21, mimeographed.)
- AMPEN, D. *Economic and social aspects of federal reclamation.* Johns Hopkins Univ. studies in hist. and pol. science, ser. xlviii, no. 1. (Baltimore: Johns Hopkins Press. 1930. Pp. 125.)
- EE, V. P. *Principles of agricultural credit.* (New York: McGraw-Hill. 1930. Pp. vii, 405. \$4.)
- ETZGER, H. *Coöperative marketing of fluid milk.* U. S. Dept. of Agric. tech. bull. no. 179. (Washington: Supt. Docs. 1930. Pp. 92. 20c.)
- AUSTIAN, P. W. *Canal irrigation in the Punjab: an economic inquiry relating to certain aspects of the development of canal irrigation by the British in the Punjab.* (New York: Columbia Univ. Press. 1930. Pp. 179. \$3.)
- PENCE, H. S. *Mica.* Canada Dept. of Mines pub. no. 701. (Ottawa: H. M. Stationery Office. 1929. Pp. ix, 142. 30c.)
- TENBOCK-FERMOR, A. *My experience as a miner.* (London: G. P. Putnam. 5s.)
- SWANSON, E. B. *Petroleum coke: an economic survey of its production and uses.* U. S. Dept. of Commerce, econ. paper 9. (Washington: Supt. Docs. 1930. Pp. 29. 10c.)
- RYON, F. G., KIESSLING, O. E. and MANN, L. *Coal in 1928. Mineral resources of the United States, 1928. Part II.* (Washington: Supt. Docs. 1930. Pp. xi, 423-606. 30c.)
- ER WIEBE, W. A. *Oil fields in the United States.* (New York: McGraw-Hill. 1930. Pp. 629. \$6.)
- WEARIN, O. D. *An Iowa farmer abroad.* (Des Moines: Homestead Pub. Co. 1928. Pp. 157. \$1.75.)
- Wheat studies.* Vol. VI. No. 4. *The contractility of wheat acreage in the United States.* No. 5. *The Danube Basin as a producer and exporter of wheat.* No. 6. *Survey of the wheat situation, December, 1929 to April, 1930.* No. 7. *Growth of wheat consumption in tropical countries.* (Stanford Univ., Calif.: Food Research Institute. 1930. Pp. 151-350.)

Manufacturing Industries

NEW BOOKS

- ARTMAN, C. E. *Industrial structure of New England.* Commercial survey of New England, Part I. (Washington: Supt. Docs. 1930. Pp. xii, 591. \$1.30.)

The United States Department of Commerce is now engaged in an

elaborate study of different regions in the United States, gathering and arranging the particular facts relating to the economic life of the nation. The purpose as expressed by the director of these surveys is to assist in the reduction of waste in industry and in the distribution of goods. This book is the first of three volumes devoted to New England, which is the second region to be investigated under the program laid down by the Department of Commerce. It purports to show that "New England industries as a whole are on a sound basis and the outlook for the future is generally one of confidence."

The largest part of this volume is given over to a careful statistical and verbal analysis of manufactures in New England, pages 148-591. However, as a preliminary and to make the frame for this large picture, there are three brief parts devoted respectively to: "National characteristics and resources," "Transportation, power and fuel," "The people of New England." The alleged justification for weighting manufactures so heavily is that "Manufacturing is the keystone to New England's commercial structure. The prosperity of this region rests mainly upon the activity of its factories and mills" (p. 149). The book is factual and descriptive. No attempt is made to weigh or evaluate the data or to draw out from the material any general deductions. Interpretations of the facts and conclusions to be drawn are left to the whim, the prejudice or the penetration of the reader. The factual material was obtained from the *Bienial Census of Manufactures* and from a lengthy questionnaire sent out to some 1,100 manufacturing concerns. The statistical basis for comparisons either within New England territory or with other sections of the United States or the United States as a whole is the value added by the manufacturing process. This value is obtained by deducting from total selling value the cost of raw materials entering into the product. Occasionally "value added" is supplemented by "value of product" and "capital invested."

The analysis of manufactures is divided into seven main groups: metals and related industries; textiles, leather and rubber; paper and printing; foodstuffs, chemicals, and a miscellaneous group. The first three groups contribute 71 per cent of the value added by manufactures. It is interesting to note that "textiles" which, by many people, is considered the leading industry of New England actually contributes only 27 per cent of the total value added. The book contains many tables, several maps and a few charts. In connection with the analysis of the groups there are certain special features of considerable importance such as the history of the textile industry and the effect of the war on this industry, the general summary of the paper industry, and the comments of manufacturers with regard to localization of the industry, attitude to changes in technical processes, the effect of hand-to-mouth buying as a result of changing consumer demand, and methods of marketing goods.

In view of the fact that the book is designed to show trends rather than to present an accurate statement of conditions, any adverse comment is perhaps unnecessary. It is obvious, however, that by this time much of the statistical material is out of date, since the data were compiled for the year 1927 or earlier. In the "value of product added" or in the cost of raw materials no account appears to be taken of changes in the general price level which would tend to make some of the comparisons of doubtful

value. At some points the thoughtful reader would feel like discounting the optimism of the director in regard to the prosperous conditions of New England industry. There are also certain inaccuracies in connection with the tables which rather obviously are the result of typographical errors. As a whole the volume is decidedly informative and gives a good general picture of the industrial situation in New England. It is to be hoped that this survey and others to be made by the Department of Commerce may really fulfill the high expectation of the director with regard to the elimination of waste in the productive process and in the marketing of goods.

EVERETT W. GOODHUE

WARDS, J. D., and others. *The aluminum industry*. Vols. I and II. (New York: McGraw-Hill. 1930. Pp. 358, 870. \$12.)

ILL, J. W. *The Otis Steel Company, pioneer*. (Cleveland: Author. 1929.)

OGERS, G. P. *The steel foundry industry: survey-report prepared for the consideration of the Executive Committee, Steel Founders' Society of America, October, 1929*. (New York: Steel Founders' Soc. of America. 1930. Pp. 244.)

YKOFF, M. *The printing industry in Cincinnati*. Vocational pamphlet no. 10. (Cincinnati: Vocation Bureau, Cincinnati Public Schools. 1929. Pp. 71.)

acts and figures of the automobile industry, 1930 edition. (New York: National Automobile Chamber of Commerce. 1930. Pp. 96.)

Industrial migration in the United States, 1914-1927. Iowa studies in business, no. 7. (Iowa City: State Univ. of Iowa, College of Commerce. 1930. Pp. 80.)

An intensive and statistical study of the migration of industry. An analysis is made of the localization and decentralization of industry, with the conclusion that the trend is toward concentration rather than decentralization. Statistics are based upon the publications of the Bureau of the Census and the Department of Commerce. Chapter 3 analyzes changes in the location of specific industries, as food products, textiles and clothing, metal products, lumber, leather, rubber, paper, chemical products, and transportation equipment. Chapter 4 treats of the ruralization of industry; there is no indication of a migration of industry out of the leading 64 cities.

The industrial utilization of Nebraska hides. Nebraska studies in business, no. 25. (Lincoln: Univ. of Nebraska. 1930. Pp. 56. 50c.)

Swift & Company 1930 year book, covering the activities of the year 1929. (Chicago: Swift & Co. 1930. Pp. 52.)

Transportation and Communication

NEW BOOKS

ELMES, C. F. *O'Fallon decision and the Brandeis dissent*. Read before Pittsburgh-Chicago group, President's Conference Committee, June 24, 1929, Toronto, Ontario. (Chicago: Glennon & Kern. 1929.)

GRODINSKY, J. *Railroad consolidation: its economics and controlling principles*. (New York: Appleton. 1930. Pp. xvii, 333. \$3.50.)

LOBBELL, E. L., compiler. *Chicago's transportation problem in January, 1930*. (Chicago: Cameron, Amberg & Co. 1930.)

- MINGOS, H. *The birth of an industry. Printed for a few of the pioneers* (New York: W. B. Conkey Co. 1930. Pp. 95.)
A history of the aeronautical industry in the United States.
- MORRIS, R. *Railroad administration*. 2nd ed. rev. and rewritten by WILLIAM E. HOOPER. (New York: Appleton. 1930. Pp. 229. \$3.50.)
- STEPHENS, G. W. *The St. Lawrence waterway project*. (New York: *Long* Carrier. 1930. Pp. 460. \$7.50.)
- WARNER, F. S. *The future movement of iron ore and coal in relation to the St. Lawrence waterway*. (Philadelphia: Univ. of Pennsylvania Press. 1930. Pp. xii, 195. \$3.)
A research study treating of the potential importance of the St. Lawrence waterway to the inland production area of North America, with special reference to iron ore and coal. Illustrated with many ingenious statistical maps.
- Railroad consolidation: a list of references*. Special ser. no. 52. (Washington: Bureau of Railway Economics. 1930. Pp. 83.)
- Railway supplies and capital expenditures*. Special ser. no. 53. (Washington: Bureau of Railway Economics. 1930. Pp. 22.)
- Report of the eighth annual meeting of the Associated Traffic Clubs of America at Cincinnati, Ohio, April 24 and 25, 1930*. Reprinted from *Traffic World*, April 26, 1930. (Chicago: Traffic Service Corp. 1930. Pp. 24.)
- Statistical report of lake commerce passing through canals at Sault Ste. Marie, Michigan and Ontario, during season of 1929, with supplementary report of commerce through the Detroit River*. (Washington: Supt. Docs. 1930. Pp. 29.)
- United States Shipping Board: thirteenth annual report, fiscal year ending June 30, 1929*. (Washington: Supt. Docs. 1929. Pp. vii, 152. 20c.)

Trade, Commerce, and Commercial Crises

- Die Konjunktur und Ihre Beziehungen zur Wirtschaftsstruktur*. By M. R. WEYERMANN. (Jena: Fischer. 1929. Pp. 44.)

This compact little study begins with a criticism, far from satisfying of the monetary theory of the business cycle. It closes with some interesting but fairly obvious considerations of the connection between the intensity of business fluctuations and the chief characteristics of the economic structure of a country: thus the oscillations are more pronounced where industry predominates over agriculture; where the psychology of the people favors enterprise and wealth; where the means of communication are well developed; where lowlands and coastlines prevail. But the central theme is the author's theory of the business cycle.

The necessary and sufficient cause of trade fluctuations is the rate of interest—presumably on long term investments. The auxiliary consideration is the fundamental dualism of capital investments: on the one hand are investments of long duration, relatively risky, such as shares of stock, frequently referred to by the author as industrial investments; on the other hand, short term investments, such as bills of

exchange, bank deposits, called briefly safe investments. The disparity between the corresponding two rates of interest produces the business cycle with automatic certainty and regularity.

Assume, for instance, a low rate of interest. Income bearing property, capitalized at this rate, will rise in value; and because of the enlargement of their possessions in terms of money, people will save less and spend more on consumers' goods. Enterprise is stimulated, and earnings are augmented; revival is at hand, and prosperity is around the corner. In response to the enlivened demand for capital, savings are readily deflected from "safe" investments and into the spheres of industry, where the rate of interest begins to mount, offering adequate compensation for the risk element, not to mention the circumstance that at this juncture popular psychology tends to treat risks rather lightly. But in time the exaggerated interest charges raise the expenses of production; profits drop; and the capitalization process depresses the value of durable investments. Chastened by the diminution of property values, people curtail expenditures and save more. However, despite the frantic demand for capital indispensable to the exploitation of the irrevocable investments in industry, the volumes of savings, scared at the risks, begin to flow into the "safe" channels, where the lower interest rates rule. Soon the strains and stresses result in business failures. The crisis arrives, then the depression. During the lull, because of the prevailing scanty earnings, industrial securities sell at bargain prices, so that even small returns prove remunerative. Gradually the risk element is reduced, owing to the "financial purification" achieved by reorganizations, changes in management, and the shrinking values of durable agents. The industrial interest rate at first falters in its rise, then descends slowly. When it reaches low levels, the depression is over, and the cycle is ready to run its course once more.

It is hardly necessary to insist that this theory is too simple to resolve the complexities of the business cycle. The author ascribes unusual powers to the interest rate, ignoring the intricate play of a multiplicity of important factors; the rate itself, so far from being a prime mover, is a reflex of various basic forces; the division of the "safe" and "industrial" rates into two disparate compartments is unwarranted; the contention that the masses save less *because* a low interest rate augments, by the process of capitalization, the value of their property, is far-fetched; if the interest rate acts as the sole cause, and if nothing else counts, it is not altogether clear why the trade fluctuations in a given country are so irregular in their duration and amplitude: we should expect neat cyclical curves. Indeed, the reader will scarcely hail the theory as the answer to the vexing problem of the business cycle.

NEW BOOKS

- DURAND, E. D. *American industry and commerce*. (Boston: Ginn. 1930. Pp. xviii, 653. \$4.)
- ROBERTS, G. E. *Why do we have the alternating periods of prosperity and depression?* An address delivered before the Economic Forum of the College of the City of New York, May 15, 1930. (New York: National City Bank. 1930. Pp. 14.)
- SCHMIDT, W. *Ernst Friedrich's Geographie des Welthandels und Weltverkehrs*. 2nd rev. ed. (Jena: Fischer. 1930. Rmk. 30.)
- WALLACE, B. B. and EDMISTER, L. R. *International control of raw material*. (Washington: Institute of Economics of the Brookings Institution. 1930. Pp. xv, 479. \$3.50.)
- Abolition of import and export prohibitions and restrictions, convention and protocol between the United States and other powers*. State Dept., treaty ser. no. 811. (Washington: Supt. Docs. 1930. Pp. 54. 15c.)

Accounting, Business Methods, Investments and the Exchanges

Psychology and Industrial Efficiency. By HAROLD E. BURTT. (New York: Appleton. 1929. Pp. xviii, 395. \$3.00.)

Industries large and small recognize the complexity of factors involved in efficient production. Many self-styled "psychologists" have offered a one necessary remedy; and psychology as a result has come to have a rather unsavory reputation among critical business men. That *bona fide* psychology does have much of a practical nature to offer industry is, however, well attested by the present volume. Burtt recognizes that improvement in production depends, not on a single or simple factor, but on many complex factors; he recognizes that the problems of industry are not solely, nor even mainly, psychological; and that for many of the most significant problems which are psychological we have as yet only a most rudimentary analysis and knowledge. It is one of the virtues of the book that although it is unusually rich in actual industrial experiments and illustrations, it appreciates the value to industry of the knowledge derived from educational, clinical, and even animal fields of experimental psychology. Chapters 2, "Education in industry," 3, "Methods of work," and 5, "Monotony," are especially complete and suggestive.

In the first of these chapters Burtt cites experiments showing that it is well, in training the worker, to lay the initial stress on accuracy rather than on speed: for accurate learning facilitates subsequent speed; whereas speeded learning continuously opposes accuracy. There is a consideration of the causes of plateaus in learning curves, a treatment of incentives (prizes, bonuses, promotions), of the use of slow stereoscopic motion pictures in learning, of the values and uses of vestibule schools, and some suggestions regarding foreman-training courses.

The chapter on methods stresses motion studies, adjustments of equipment, mental disturbances, rhythm of operation, and social factors. The treatment of rhythm ranges from the selection of thin, nervous men for certain breaking operations in copper metallurgy because of their kind of working rhythm, to the dynamogenic effect of songs in the cotton fields. There is likewise a range of practical suggestions regarding the pairing or grouping of workers, all based on experimental evidence.

Monotony seems almost unavoidable in the minute division of labor of the present day. Yet there are great individual differences in susceptibility to monotony, and these differences seem to be more in the nature of mental habits and temperamental attitudes than in the nature of intelligence. The author suggests that even in the present stage of our knowledge much can be done to reduce monotony by proper placement of workers, occasional changes of work, introduction of rest periods, information about the product, its processes and uses, and by education for leisure.

Other chapters of the book treat fatigue, accidents, physical factors in the working environment, satisfaction and morale, efficiency in executive work, and the future of industrial psychology. In the concluding chapter—on this last topic—the author points to the greater advancement of Europe. This advancement he explains as the result of greater understanding and better coöperation of European industrial workers. The reviewer suggests that a first step in effecting such an understanding and coöperation among Americans is a fuller and more critical appreciation of such problems and achievements as Burt writes of.

C. L. STONE

Dartmouth College

NEW BOOKS

BADGER, R. E. and MURPHY, H. C. *Problems in investment*. (New York: Prentice-Hall. 1930. Pp. vi, 386.)

HARRIS, J. R., JR. *Industrial accounting for executives*. (New York: McGraw-Hill. 1930. Pp. xiv, 449. \$5.)

This volume should have been named *Industrial Accounting for Engineers*. In style it reminds one of Church's *Manufacturing Costs and Accounts*. I should recommend it as a text only in schools giving a thorough course in accounting to engineers. The book would also be useful to instructors for its numerous diagrammatic illustrations which are excellent, even though it would seem that a few are too intricate for the beginner. The reader interested in an accounting work more suitable to a typical executive should examine *The Successful Control of Profits* by Rautenstrauch.

DAVID HIMMELBLAU

BASSETT, W. R. and HEYWOOD, J. *Operating aspects of industrial mergers*. (New York: Harper. 1930. Pp. 214. \$3.)

- BECKMAN, T. N. *Credits and collections in theory and practice*. 2nd ed. (New York: McGraw-Hill. 1930. Pp. xvii, 599. \$4.)
- BEZANSON, A. and HUSSEY, M. *Wage methods and selling costs: comparison of sales clerks in four major departments in thirty-one stores*. Wharton School of Finance and Commerce, research studies no. 10. (Philadelphia: Univ. of Pennsylvania Press. 1930. Pp. xxi, 405. \$4.50.)
- BREWSTER, F. R. *Office standards and costs as applied to public utilities*. Official pubs., vol. xi, no. 20. (New York: National Assoc. of Cost Accountants. 1930. Pp. 1365-1381. 75c.)
- CASTENHOLZ, W. B. *The control of distribution costs and sales*. (New York and London: Harper. 1930. Pp. viii, 194. \$3.50.)
- CHURCH, A. H. *Overhead expense in relation to costs, sales and profits*. 1st ed. (New York: McGraw-Hill. 1930. Pp. viii, 418. \$5.)
- COLLINS, G. R. *Marketing*. (New York: Alexander Hamilton Institute. 1930. Pp. xxvi, 351.)
- CONVERSE, P. D. *Elements of marketing*. (New York: Prentice-Hall. 1930. Pp. 1080. \$5.)
- CONWAY, A. *Rate cutting*. An address before the New York State Association of Local Agents, Inc., Syracuse, New York, May 20, 1930. (Syracuse, N.Y.: N.Y. State Assoc. of Local Agents. 1930. Pp. 12.)
- CRICK, W. F. *The economics of instalment trading and hire-purchase*. (London: Isaac Pitman. 1929. Pp. vii, 128. \$1.50.)

This small volume is allegedly written not only to examine the subject with which it deals in a somewhat critical way but to bestir others to make still more thorough investigations of the matter. The author, after touching upon the "World-wide development" of instalment selling deals in a series of chapters, with "The nature and sources of instalment credit;" "The problem of instalment credit;" "Production, consumption and saving;" "Initial effects of a growth in instalment buying;" "Reflex effects on production;" "Saving and spending;" "Movements in the standard of living—the limits to instalment buying;" "Instalment buying and the business cycle." A final chapter is devoted to "Striking a balance." In this the author concludes that instalment buying has lifted the average standard of living to a higher plane. This happy outcome is not, in the mind of the author, reached without some items in the debit account. He concludes that the system operates somewhat to intensify and prolong the periods of depression in the business cycle and that in so doing checks an upward movement in living standards. The net outcome, however, is "inevitably to a favorable conclusion." The book shows incisive thinking and is a piece of enjoyable exposition, readable and pleasing. It will strike American readers, however, as curiously lacking in data. Although an occasional formula—of the sort more common in American economic writing a generation ago than now—appears, the author has not found it necessary to support his observations with a single table or chart.

LEVERETT S. LYON

- DIEMER, H., editor. *Wage-payments that reduced production costs*. (New York and London: McGraw-Hill. 1930. Pp. x, 272.)
- DURHAM, R. F., editor. *Financial advertising in 1929 reproducing 100 representative advertisements of the year*. (New York: Bankers Pub. Co. 1930. Pp. vii, 213.)

- EDRIDGE, F. R. *Financing export shipments*. (New York and London: Harper. 1930. Pp. ix, 231.)
- ESHER, E. M. *Advanced principles of real estate practice*. (New York: Macmillan. 1930. Pp. vii, 522. \$3.50.)
- ESHER, I. *The stock market crash—and after*. (New York: Macmillan. 1930. Pp. xxvi, 286. \$2.50.)

It is Irving Fisher's contention that between two-thirds and three-fourths of the rise in stock market prices between 1926, and September, 1929, was justified, and that "with the exception of two or three months immediately preceding the panic, the market was not much, if any, over-inflated" (p. 263). Furthermore, the panic could have been avoided, so that a gradual decline of fifteen to twenty per cent in the level of prices would have occurred instead of the abrupt crash to a point forty-two per cent below the maximum reached.

Professor Fisher argues that the major part of the rise was justified because of the economies secured through mergers, lowering of costs through the rapid development of scientific research and invention, improvements in management which increased productivity, and a new policy of coöperation on the part of labor resulting in greater efficiency. All these combined greatly to increase earnings of American corporations. In addition, earnings were "plowed back" to such an extent that the corporations occupied a much stronger position.

Furthermore, there were the economic benefits of prohibition, the advantages of a commodity price level approximately stable, the removal of risk through the use of investment counsel, and the flight from bonds to stock. "It was in the main overeagerness to profit by these factors which produced the crash. The prime fault lay in the credit structure."

Trouble developed because cheap money enabled speculators to borrow and buy stocks in the hopes of securing profits. The last three months preceding the break saw, as a result, an overextension of margin accounts and an overexpansion of brokers loans, led on by sound expectation of earnings. This made the market subject to apprehension, bear raids, or such international shocks as the Hatry crash in London. Buyers of stocks had tried more and more to do business on borrowed money. Had the Federal Reserve Board permitted rediscount rates to be raised earlier, the rise of the last three months might have been prevented and the panic avoided.

One important contributing factor was the tax on capital gains, which kept many holders of stocks from selling during the rise and therefore helped to drive the level higher. The author advocates the repeal of this tax.

He points out that it was largely the tremendous volume of new financing in stocks in the first ten months of 1929, nearly nine and one-half billion dollars, that projected the top-heavy market into the abyss, that whatever losses resulted were confined for the most part to the upper one or two per cent of income receivers, and that the crash was after all a world-wide decline in stock prices which began in London. He compliments President Hoover on his efforts to avoid a serious depression, and suggests remedies to prevent a recurrence of stock market panics.

While many economists will feel, to paraphrase the title of one of the author's well known books in another field, that this volume does

not represent Irving Fisher at his best, it does contain considerable information which is valuable as well as interesting.

CHARLES S. TIPPETT

- GILES, R. *The sales expansion question book*. (New York and London: Harper. 1930. Pp. xii, 161. \$3.)
- GREER, H. C. *Distribution cost analysis—methods and examples*. Official pub., vol. xi, no. 19. (New York: National Assoc. of Cost Accountants. 1930. Pp. 1305-1320. 75c.)
- HAIGHT, H. H. *Management's control of labor on piece work*. Official pub., vol. xi, no. 18. (New York: National Association of Cost Accountants. 1930. Pp. 1238-1287.)
- HALL, S. R. *The advertising handbook*. 2nd ed. (New York: McGraw-Hill. 1930. Pp. 1048. \$5.)
- HANSON, A. W. and COFFMAN, P. B. *Problems in auditing*. 1st ed. (New York: McGraw-Hill. 1930. Pp. xii, 754. \$6.)
- HANTOS, E. *Die Rationalisierung der Weltwirtschaft*. Recht und Statistik in Geschichte und Gegenwart, 71. (Tübingen: J. C. B. Mohr. 1930. Pp. 47.)
- HARRISON, G. C. *Standard costs: installation, operation and use*. (New York: Ronald. 1930. Pp. xii, 308. \$5.)
- HESS, H. W. *Creative salesmanship: scientific ideas for salesmen, sales managers and sales administrators*. 2nd rev. ed. (Philadelphia and London: Lippincott. 1929. Pp. 339.)
- HODGES, C. F. *Wall Street. A practical text on the work of all departments of the brokerage house, with information for investors and traders*. (New York: Wall St. Business School. 1930. Pp. 512. \$6.)
- HOXIE, G. L. *Stock speculation and business*. (Boston: Stratford. 1930. Pp. 69. \$1.)
- HULVEY, C. N. *Commercial law: principles and cases*. (New York: Macmillan. 1930. Pp. xxiii, 643. \$3.50.)
- KESTER, R. B. *Accounting theory and practice*. Vol. I. 3rd ed. (New York: Ronald. 1930. Pp. xx, 835. \$4.)
- KLOOSTER, B. L. *Patent accountings: a phase of cost accounting. Rules and principles for determining profits and deductions, advantage derived from damages, and reasonable royalty, as evolved by the courts in patent infringement accountings*. (New York: Prentice-Hall. 1930. Pp. xxvii, 795.)
- KRAFT, C. and STARKWEATHER, L. P. *Analysis of industrial securities*. (New York: Ronald. 1930. Pp. 321. \$5.)
- LANSBURGH, R. H., editor. *Standards in industry*. Annals, vol. cxxxvii, no. 226. (Philadelphia: American Academy of Political and Social Science. 1928. Pp. viii, 282. \$2.)
- The extent to which the standardization and simplification movement has penetrated American industry during the past decade, the methods in use, the results obtained, and the relation of this significant phase of industrial progress to our economic and social life are reviewed in this volume. Part 1 deals with standardization programs in industry in general; Part 2, with standardization programs of specific industries; Part 3 describes some standardization programs outside of industry; Part 4 is entitled "Standardization and the consumer."

The Work and simplification made much the Chamber of Commerce Engineering Standard credit in of manufacturing increasing In the pertinent attitude. Mathew W. serious Mr. Woll where it "life" but its beauty In disc consumer, M gains in governm specific ards. M seminate for whom making ards has competit The c might h probabi tion, co lar will accordi nomic must al is red bility. Simp to acco sible i and ov excess a num Their ment

LEIBSON
Pub.

The World War created situations which made efforts to standardize and simplify imperative. From this impetus, industrial management has made much progress. To the United States Department of Commerce, the Chamber of Commerce of the United States, and the American Engineering Standards Committee and its associates is due a large share of the credit in promoting standardization programs. Coöperation on the part of manufacturers is no doubt a defensive measure, resulting from the increasing intensity of competition.

In the group of papers on this subject here published are to be found pertinent comments on the effects of standardization upon labor and labor's attitude. Although recognizing the benefits, both William Green and Mathew Woll of the American Federation of Labor point out the resulting serious problems of increased unemployment and of wage maintenance. Mr. Woll approves of standardization "where it seeks to make toil easier, where it aims to conserve materials, where it simplifies the mechanics of life" but objects where it "seems to rob life of its diversity, to take away its beauty, to infringe upon its freedom."

In discussing standardization from the standpoint of the ultimate consumer, Messrs. F. J. Schlink and R. A. Brady wonder how much the consumer benefits from lower retail prices and how much the manufacturer gains in the way of increased profits. The steps being taken by the government to protect the consumer through certification of standard specifications are enumerated by A. S. McAllister of the Bureau of Standards. Mr. Brady criticizes the federal government for its failure to disseminate its vast stores of useful information to the ultimate consumer for whom it professes much solicitude. Manufacturers feel, however, that making available to the public such information as the Bureau of Standards has in its possession would harm business, the theory being that "price competition" would then displace so-called "free competition."

The question is raised frequently as to whether or not standardization might have a tendency to reduce promotional or advertising costs. In all probability, this will not be the case. Standardization or no standardization, competition among industries, and products, for the consumer's dollar will always persist, increasingly perhaps. The final test of a standard, according to K. H. Condit, editor of the *American Machinist*, is its economic justifiability. Factors of timeliness, style and public acceptance must also be considered. While the primary advantage of standardization is reduced costs, its greatest disadvantage is a tendency toward inflexibility.

Simplification, however, is a commercial expedient sufficiently elastic to accommodate varying industrial and marketing situations. Where possible it is introduced as a preliminary to standardization, complements it, and overcomes many of the criticisms directed at possible standardization excesses. The natural limitations of standardization are recognized by a number of the contributors who have been associated with the work. Their articles are valuable in pointing out that enthusiasm for a movement should not permit it to be carried to extremes.

V. D. WICKIZER

LEIBSON, I. B. *Investment trusts—how and why.* (New York: Financial Pub. Co. 1930. Pp. 92. \$2.)

- LE NOIR, C. W., compiler. *Stock rights (1930) under the revenue acts 1918, 1921, 1924, 1926, and 1928.* (San Francisco: Securities Statistics Co. 1930. Pp. 138.)
- LESTICO, H. H., LAYNE, L. and RETTEBERG, C. R. *Chain meat market management.* Book 2, 1st ed. *Beef, lamb and veal.* (Los Angeles: H. Lestico Pub. Co. 1930. Pp. 144.)
- LEWIS, H. T. *Distribution of hard fibre cordage.* Bull. no. 82. (Boston: Harvard Univ. Bureau of Business Research. 1930. Pp. vi, 26. \$2.)
- MALONE, P. *Industrial surveys.* Kansas studies in business, no. 12. (Lawrence: Univ. of Kansas. 1930. Pp. 63. 50c.)
- MARSHALL, L. C., editor. *Industrial society.* Part 3. *The coördination of specialists through the market.* Rev. and enl. ed. (Chicago: Univ. Chicago Press. 1930. Pp. xxi, 949-1658.)
- MOON, P. T., editor. *Business, speculation and money: a series of addresses and papers presented at the annual meeting of the Academy of Political Science, November 22, 1929.* Proceedings, vol. xiii, no. 4. (New York: Academy of Political Science. 1930. Pp. xii, 123.)
- MOORE, A. R., compiler. *Books for your business: a selected list.* (Madison: Wisconsin Free Library Commission. 1929. Pp. 44.)
- MORGAN, C. E. *The origin and history of the New York Employing Privateers' Association: the evolution of a trade association.* (New York: Columbia Univ. Press. 1930. Pp. 139. \$3.75.)
- NICHOLS, H. W., 3d. *Lectures on bankers and brokers blanket bonds.* (New York: Insurance Society of N.Y. 1929. Pp. 28.)
- NIEHUS, M. L. and FISHER, E. M. *Problems of long-term leases.* Michigan business studies, vol. ii, no. 8. (Ann Arbor: Univ. of Michigan. 1930. Pp. 73. \$1.)
- PADEL, C. G. *True values in business and buying: a theme for executives and others.* (New York: B. C. Forbes. 1930. Pp. 226. \$2.50.)
- REITELL, C. and VAN SICKLE, C. *Cost finding for engineers.* (New York: McGraw-Hill. 1930. Pp. viii, 518. \$5.)
- SANDERS, T. H., and COFFMAN, P. B. *Problems in industrial accounting.* 2nd ed., completely rev. (New York: McGraw-Hill. 1930. Pp. xxi, 816. \$6.)
- SCHMALZ, C. N. *Operating results of department and specialty stores 1929.* Bull. no. 83. (Boston: Harvard Univ. Bureau of Business Research. 1930. Pp. ix, 66. \$5.)
- SCHNACKEL, H. G. *The art of business thinking.* (New York: Wiley. 1930. Pp. 160. \$2.50.)
- SNOW, A. J. *Psychology in business relations.* 2nd ed. (New York: McGraw-Hill. 1930. Pp. xii, 529. \$5.)
- TAGGART, H. F. *Subdivision accounts.* Michigan business studies, vol. ii, no. 7. (Ann Arbor: Univ. of Michigan. 1930. Pp. 89. \$1.)
- TAYLOR, J. B. and MILLER, H. C. *C.P.A. problems and questions in theory and auditing.* 1st ed. (New York: McGraw-Hill. 1930. Pp. ix, 603. \$5.)
- TOBIAS, M. E. *Profitable retail advertising.* (New York and London: Harper. 1930. Pp. x, 276.)
- VAILE, R. S. and SLAGSVOLD, P. L. *Market organization: an introductory course.* (New York: Ronald. 1930. Pp. xviii, 498. \$4.)

WHITE, W. L. *Coöperative retail buying associations*. 1st ed. (New York: McGraw-Hill. 1930. Pp. xii, 207. \$3.)

This book is confined to a study of the results of coöperative retail buying associations. Such an association is defined by the author as "incorporated organization of financially independent retailers which acts as a common but distinct wholesale distributor for its members, buys in its own name, and warehouses its purchases." Consumers' coöperative buying clubs or pools, buying groups or syndicates, manufacturer-retail coöperatives, and coöperative wholesale buying associations are excluded by this definition.

The book gives evidence of a careful analysis of material, and an apparent realization of, as well as a statement of, any limitations to the accuracy of the conclusions. Most of the comparisons are drawn between the coöperatives and the service type of wholesaler. But at numerous points, particularly in the concluding chapters, comparisons are made with chain-store systems and "contract wholesalers" (wholesalers operating under contract with independent retailers).

The chief advantage of the coöperative organization is in reduced expenses, chiefly in selling costs. "The lack of selling effort as exerted between the association and its membership is both a weakness and a strength. It is a weakness in that the association cannot aggressively increase sales either to members or to non-members. It is a strength, and the strongest single advantage of the coöperative retail buying association, in that the largest single item of wholesale expense is greatly reduced" (p. 48).

The author shows that, whereas chain stores and contract wholesale systems may be able to improve merchandising methods and reduce both wholesale and retail expense, the advantages of the coöperative are largely confined to the reduction of wholesale expense. To counteract this weakness the members of a coöperative are advised to influence their association "to take steps to increase the merchandising ability of its members." Throughout the book the effect of the movement on manufacturers, wholesalers, and retailers is frequently discussed.

FRED E. CLARK

HITNEY, R. *The work of the New York Stock Exchange in the panic of 1929*. Address delivered before the Boston Association of Stock Exchange Firms at the Algonquin Club, Boston, Massachusetts, June 10, 1930. (New York: N.Y. Stock Exchange. 1930. Pp. 29.)

HIDDER, MRS. V. R. *Apartment and apartment hotel management*. 1st ed. (Los Angeles: Wetzel Pub. Co. 1930. Pp. 157.)

COLAVER, E. S. *Business law: cases and other authorities for the study of the function of law in business*. (New York: McGraw-Hill. 1930. Pp. xii, 461. \$4.)

OUNGER, J. *Work routing in production, including scheduling and dispatching*. (New York: Ronald. 1930. Pp. ix, 115. \$3.)

Asphalt Shingle and Roofing Institute: *agreement, merchandising plan, code of ethics and bond*. (New York: Lawyers' Press. 1930. Pp. 26.)

Balance sheet structure of automobile manufacturing companies. Bull. no. 29. (Urbana: Univ. of Illinois Bureau of Business Research. 1930. Pp. 65. 50c.)

Bell Telephone securities: reference tables and descriptions. (New York: Bell Telephone Securities Co. 1930. Pp. 65.)

For the use of investors, investment houses and bankers, with a brief introductory statement of the organization and financing of the American Telephone and Telegraph Company and associated companies.

Commercial arbitration under German law. Brochure no. 72. (Paris: International Headquarters of the International Chamber of Commerce, Cours Albert I^{er}. 1930.)

The cost of handling grain through the terminal markets. (Kansas City: Board of Trade of Kansas City. 1930. Pp. 16.)

Financial plan of gas companies. Bull. no. 27. (Urbana: Univ. of Illinois Bureau of Business Research. 1929. Pp. 49. 50c.)

Findings and orders of the Federal Trade Commission, November 5, 1928 to January 29, 1928. Federal Trade Commission decisions, vol. xi. (Washington: Supt. Docs. \$2.25.)

How to audit: a manual of procedure by the staff of Miller, Franklin Company. (New York and London: Harper. 1930. Pp. xi, 233. \$4.)

Keane's manual of investment trusts. Third annual number. (Boston: Financial Publishing Company. London: Routledge. 1930. Pp. 224.)

This third issue of the manual covers 608 investment trusts with capital in excess of 3 billion dollars. Detailed information is given as to the contents of the portfolios of the several trusts. Part II contains the New York Stock Exchange listing requirements; the House Interstate Commerce Committee questionnaire relating to investment trusts, state regulations governing these companies; directory of directors, trustees, etc., and also of bank and trust company affiliations and offering houses. This is of interest as showing the interlocking of directorates. Securities held by investment trusts cover nearly 300 pages. Each security is listed individually and for it are given the names of the trusts holding it. For students interested in this branch of private finance the volume furnishes the most complete detailed information now available.

Marketing expenses of grocery manufacturers for 1927 and 1928. Bull. no. 79. (Boston: Harvard Univ. Bureau of Business Research. 1930. Pp. 26. \$2.)

New York Stock Exchange. Report of the president, May 1, 1929-May 1, 1930. (New York: N.Y. Stock Exchange. 1930. Pp. 112.)

Rational organization and industrial relations. A symposium of views from management, labour and the social sciences. (The Hague: International Industrial Relations Assoc. 1930. Pp. 279. H.Fl. 3.50.)

Capital and Capitalistic Organization

Trust and Corporation Problems. By HENRY R. SEAGER and CHARLES A. GULICK. (New York: Harper. 1929. Pp. xii, 719. \$3.50.)

The book is mainly concerned with the trust problem. For two reasons, however, the authors thought it advisable to include a chapter on corporations: First, most trusts are corporations, and the modern holding company and merger movements depend upon the existence of the economic institution "corporation"; and second, the regulation of trusts must to a certain extent proceed through regulation of corporate

practices (stockwatering in order to hide profits, publicity of financial statements, etc.).

Seager and Gulick give an outline of the "combination-for-monopoly" movement and of the anti-trust policy of the United States up to date. This part of the book deserves praise for its clear, though compact, treatment of this complicated legal and historical background. It is recommended to readers who desire a brief treatment of this phase of the monopoly problem in the United States. It very properly omits many technical and legal details which are not essential for an understanding of the economics of the problem. The description of foreign developments and policies is competent and as complete as a short survey can be made.

The authors finally come to the conclusion that combinations, "trusts," are economically sound and ought not to be prevented, but should be allowed to continue, regulated only as far as the public interest demands. Today four policies toward monopoly are advocated: (1) a strict upholding of the original anti-trust policy and giving up of the exceptions; (2) the continuance of the present policy; (3) an extension of the exceptions against strict supervision; (4) the sanctioning of all concerted action and combinations for monopoly if "reasonable." The authors support proposition (4). However, they are doubtful whether the United States could establish a policy stable enough to be trusted with regulation. They believe that proposition (3) ought to be adopted by this country, at least for the present.

To begin criticism with a fairly technical matter, the authors do not realize that a too compact definition of a very complex economic institution, especially when preceding its discussion, might be very handy, but is not desirable for the development of clearness in concepts, the lack of which is still very pronounced in respect to the monopoly problem. It is the scholar's duty to construct definitions that foster understanding of the underlying situation, even though lax popular practice and legal usage (anti-"trust" laws) do not. Seager and Gulick give the following definition of trust: "The term 'trust,' as used in this book, signifies an industrial combination, not a legal nor a natural monopoly, which seeks to escape the restraints and avoid the wastes of competition by absorbing, or forcing out of business its would-be competitors, or by acting in concert with them in fixing prices or regulating outputs." This definition includes according to their statement, simple agreements, pools, trade associations, holding companies, mergers, trusts proper. In the opinion of the reviewers it is customary to call trusts only the corporate form of monopoly and not to include under the term concerted action among independent entrepreneurs. Monopoly aspired by concerted action and monopoly aspired by corporations underlie sufficiently

different economics to warrant a separation of both. M. W. Watkins has pointed out these differences as they are and are reflected in differing interpretation of the regulating law toward them.

There seem, to the reviewers, to be four types of combinations differing in essentials from each other:

(1) A concern which monopolizes an entire industry (for example the German dye-trust), regardless of the form of the organization whether holding company, merger, or trust proper. The name may be *trust*.

(2) A concern large in respect to its value product (for example General Motors Corporation), but without monopoly position. Merely while for lack of a better term this might be called in conformity with M. W. Watkins "*big business*."

(3) Concerted action between business units otherwise independent for the purpose of controlling either prices or output. It has been customary to call such organizations *cartels*, following the phraseology in Germany where they are most common. Such agreements are illegal and therefore officially not existent in the United States (Potter Cartel).

(4) Coöperation among independent entrepreneurs for the purpose of fostering efficiency in production and marketing. This coöperation extends to dissemination of statistics concerning past prices, sales, production, stocks on hand, etc., to joint advertising, to the establishment of uniform cost, accounting systems, etc. Such coöperative organizations may best be called *trade associations*, the term now in use in the United States where they are most common.

Strictly speaking, only trusts and cartels come under the trust definition of the authors, the two other forms of combination, "*big business*" and "*trade associations*," have to be considered in a treatise on the "*combination for monopoly*" problem because their activities are often on the borderline leading to monopolistic aspiration and because they have to be considered and evaluated as alternatives to monopolistic combinations, especially in the United States.

The reviewers were disappointed to find the legal and historical aspects extensively and carefully treated at the expense of the economic problems, many of which have merely been stated.

The future development of the "*combination for monopoly*" movement itself and of public policy toward it depends primarily on the understanding and the attitude of the student of today, for whose instruction Seager and Gulick design their book. After all, an economically sound administration of an industrial combination and an economically sound public policy can better be fostered by working out valid criteria for judging the economic desirability of concerted action than by teaching

the history of combinations and their treatment by public policy. The interpretation and administration of the anti-trust laws have probably been guided in the past more by common sense and practical wisdom than by reasoning based on careful studies of the essential economic forces involved. The form too of industrial combination and concerted action has necessarily developed along the lines prescribed by the public attitude. As the authors rightly point out, this attitude has varied and been unstable to a certain extent. Only a thorough education in the economics of the problems can amend this and secure a sound future development.

The two possible ways of dealing with monopolies are prevention and control. The authors have not done enough to justify their opinion that control is economically desirable though perhaps not feasible in practice and under the present circumstances. They do not make the student aware of the intricacies underlying the search for a decision. Even though probably a final criterion and an ideal scheme of public policy is impossible to find, the student should be able to get from the scholar a full insight into all phases of the problem, and a discussion of their relative importance, in order that an approach to the best solution may be found. The timeliness of the question can be judged by the numerous efforts to reform public policy, in this country as well as in Europe—especially Germany. An evaluation of the following would have proved fruitful since one of the authors was in Germany at the time:

- (1) Of the ideas and proposals at the Juristentag in Salzburg in 1928.
- (2) Of Professor Schmalenbach's much discussed address in Vienna in 1928.
- (3) Of the official proposal of the German trade unions who advocate the creation of a board of supervision for cartels and corporate monopolies with their coöperation.

The authors' conclusions as to the comparative social efficiency of free competition and regulated monopoly might have been different had they compared the results obtained through the opposite policies in Germany and the United States. The reviewers are inclined to share the opinion voiced at the conclusion of the "German Cartel-Enquête" in 1928, that promotion of efficiency is neglected exactly in proportion to the strengthening of monopolistic power. They would therefore closely agree with M. W. Watkins' conclusion on the matter that after all the policy pursued in the United States is better as long as the existing system of private property prevails. The abolition of free competition must necessarily involve a sharp restriction of the rights of private property and the right to make profits. In order to insure

further economic progress in this case, a shift in the incentive of the entrepreneur from the desire for personal gain to some other ideal is necessary, aside from an entire reorganization of administrative methods.

The above are only a few of the questions to be dealt with in a comprehensive study of monopolies and merely indicate the direction which the reviewers would wish to have seen pursued in *Trust and Corporation Problems*. The book is, however, up to date and is the best treatise written for instructional use in the conventional manner.

ROBERT M. WEIDENHAMMER
FRANCES KREBS

University of Minnesota

NEW BOOKS

ANDERSEN, A. *The possibilities and the dangers inherent in mergers, consolidations and acquisitions*. Official pubs., vol. xi, no. 18. (New York: National Assoc. of Cost Accountants. 1930. Pp. 1219-1236. 75c.)

BARNES, I. R. *Public utility control in Massachusetts: a study in the commission regulation of security issues and rates*. (New Haven: Yale Univ. Press. 1930. Pp. 239. \$3.)

In his comprehensive and well documented study of the policy of controlling the public utilities in Massachusetts, Dr. Barnes has performed a signal service. As it happens, the Massachusetts statutes and their administration center upon the regulation of a rate base and rates of return which, taken together, constitute the crux of utility control. On this question the issue is most sharply drawn between the reproduction cost new theory and that of prudent investment. The former is emphasized by the Supreme Court, while the latter is commonly ascribed to the Massachusetts Department of Public Utilities. Dr. Barnes not alone traces the history of the development of the Massachusetts policy and analyzes the significance of "prudent investment" as adopted in that state, but he also directly contrasts it in a separate chapter with the "reproduction cost" policy as this is outlined in Supreme Court decisions. This emphasis and this contrast make the work peculiarly valuable and timely.

The avowed purpose of the Massachusetts regulatory bodies in the past and of the present Department of Public Utilities is to control the rate of return and so the rates, by controlling security issues and their prices at the time of issue on the basis of honest and prudent investment. In his analysis and criticism, however, the author finds serious inconsistencies between the avowed policies of the Department and their practices. In the first place, stock issues have been materially less than investment because of the established policy of requiring, when possible, that a utility sell its stock at a premium. This has been due (1) to the legal provision that the stock of most utilities must be sold at par or better and (2) to the practice of prescribing the sale price of new issues at a premium when current market values are above par.

Secondly, the Board has encouraged the utilities to "plow back" into the property earnings in excess of dividend requirements, without however permitting them ever to capitalize such investments. In conjunction

with this is the prohibition on the issuance of stock dividends. Accordingly, capitalization and investments are far from being equivalent to one another. In general it would therefore appear that, in spite of the affirmation of the Department to the contrary, the amount of outstanding securities falls short of being the measure of the "capital honestly and prudently invested."

According to Dr. Barnes, this discrepancy between the amount of the securities and the amount of the investment has caused the Department no difficulty because it has not as a matter of practice been particularly concerned with the value of the property or the rate base in contested rate cases. An analysis of the decisions discloses, to quote the author, "that, with a few notable exceptions the Massachusetts Commissions have failed to make any definite findings as to the rate base upon which the particular utilities involved were entitled to earn a fair return" (p. 143).

He goes even further in maintaining that the determining factor with the Department is not the rate base but the credit of the company, which depends primarily on the fair return. On the theory that satisfactory service is dependent on the financial condition of the company concerned, the Department aims to permit such a return as will enable the company to maintain the market price of its securities considerably above par, usually from 20 to 25 points above. In estimating this, it takes into account the operating expenses, taxes, allowances for depreciation and current interest rates. On the basis of these calculations and considerations it sets the amount of the fair return and, where necessary, arrives at a rate base that will earn the amount of profits equivalent to the preconceived estimate of the fair return. By such a method the actual value of the property is given practically no weight and "fair value" becomes a mere fiction (page 156). The maintenance of credit thus becomes the prime factor, not the fair and reasonable value.

The Massachusetts Department departs from the accepted procedure as prescribed in the decisions of the Supreme Court not only in excluding reproduction costs new but also in refusing to give consideration to reinvested earnings, unearned increments on land and property, or to such intangibles as "going value" and overhead expenditures, as elements of value in the rate base. Despite these departures from the methods that have been generally accepted as the law of the land, there have been with one or two exceptions no appeals from its decisions to the federal courts. This apparent acquiescence of the utilities in the policies of the Department would lead to the deduction that the liberal policy of the Department in the matter of dividends has permitted of a return approximating what might have been expected from the rulings of the courts. A further explanation of the absence of appeals is the threat of public ownership,

In a separate chapter Dr. Barnes contrasts the Massachusetts policy with that of the Supreme Court in which reproduction costs are given primary weight, as well as with the prudent investment theory as this has been propounded by Dr. John Bauer. He concludes that although the former diverges from prudent investment in important particulars it is still more closely akin to this than to the Supreme Court doctrine.

The author finally submits a critical appraisal of the Massachusetts practices in regulating utilities. He praises the work of the authorities in keeping capitalization at a minimum, but believes that this has not been

entirely successful because of the lack of jurisdiction over floating indebtedness. He doubts the wisdom of insisting that securities should be issued at par or above on the ground that at times it interferes with rate reductions. Issuances below par are already permitted to gas, electric and water companies. He also urges that premiums should be capitalized although granting that the Department has by its methods practically included these in considering investments. The author also condemns the "seeming illegality" of those phases of regulation which mark departures from the Supreme Court procedure. But his principal strictures are directed against the indefiniteness of the commission's decisions with respect to determining a specific rate base and the ignoring of the consumers' interests because of this indefiniteness and uncertainty.

Dr. Barnes deserves much credit for his careful and comprehensive analysis and criticism of the Massachusetts system of utility regulation. The major shortcoming of this work, if it be a shortcoming, is a lack of appreciation of the value of this unique experiment in utility control which is based, as Dr. Barnes himself points out, on the conviction that the utilities are the agents of the state and under an implied contract to accept the form of regulation adopted in the state (p. 207).

So far as the present writer can judge, Dr. Barnes accepts the method of valuation prescribed in court decisions as a final criterion both for the evaluation of the Massachusetts policy and the prudent investment theory. His appraisal of the three schemes would have had added value if he had subjected that of the Supreme Court to the same critical scrutiny as the others. In respect to indefiniteness, it surely surpasses that of the Massachusetts Department. It would be truly lamentable if we had to look forward to the consistent application of the present judicial standards as the final criterion of utility valuations.

In justice to the Massachusetts Department a note of protest should be sounded at Dr. Barnes' implication that consumers' interests are not being protected despite the indefiniteness of the current policy. On the basis of rate comparisons—however unsatisfactory they may be—it would appear that the consumers in Massachusetts are faring on the whole as well as, if not better than, in other states in the union; nor are service conditions less satisfactory than elsewhere.¹ On the whole the position seems tenable in view of the attitude both of the utility companies and of consumers that the regulation of utilities in Massachusetts will compare favorably with that of any other state.

The writer of this review would also hesitate to accept the author's analysis of the usual method adopted by the Department of Public Utilities in arriving at the rate base. If one gives credence to Commissioner Goldberg's description of the Department's procedure in contested cases,² due consideration is given to actual investment, to reinvested earnings, to the dividend policy and the efficiency of the company concerned, as well as to the other factors listed by Dr. Barnes.

These comments should, however, not seriously detract from the significance of this study. It is a competent and workman-like investigation

¹ See data cited by Commissioner Atwill in stenographic minutes of Hearings before the Legislative Commission on the Revision of the Public Service Commission's Law of New York State, pp. 1572-1575.

² *Ibid.*, pp. 1593 ff.

and brings together information that will throw light on one of the most critical economic and political problems of the present time.

WILLIAM E. MOSHER

BASSETT, W. R. AND HEYWOOD, J. *Operating aspects of industrial mergers.* (New York: Harper. 1930. Pp. ix, 205. \$3.)

FOVEL, N. M. *Economia e corporativismo.* (Ferrara: S.A.T.E. 1929. Pp. 85.)

GROSS, H. *Tabakmonopol und freie Tabakwirtschaft: ein Vergleich der Österreichischen Tabakregie und der deutschen Tabakwirtschaft.* Probleme der Weltwirtschaft, Band 51. (Jena: Fischer. 1930. Pp. xvi, 160. Rmk. 10.)

KLUG, O. *Das Wesen der Kartell, Konzern und Trustbewegung: ein wirtschaftliches und soziologisches Problem.* (Jena: Fischer. 1930. Pp. xiv, 370. Rmk. 19.50.)

McLAUGHLIN, J. A., editor. *Cases on the federal anti-trust laws of the United States.* Part 1. (New York: Ad Press. 1930. Pp. iii, 177.)

MOON, P. T., editor. *Public control of power: a series of addresses.* Proceedings, vol. xiv, no. 1. (New York: Academy of Political Science. 1930. Pp. 221. \$2.50.)

NORTH, F. A. *Massachusetts business corporations.* 5th ed. (Boston: Johnson & North. 1930. Pp. 181.)

PASSOW, R. *Kartelle.* Beiträge zur Lehre von den Unternehmungen, Heft 13. (Jena: Fischer. 1930. Pp. vi, 176. Rmk. 9.)

TOULMIN, H. A., JR. *Millions in mergers.* (New York: Forbes Pub. Co. 1929. Pp. xv, 323. \$3.50.)

Although this book has a Babbitt title, it merits the attention of students in outlining the principal factors which have attended the failures and successes of mergers; it also lays down the rules which should be observed by companies planning to make a new merger. In that respect it is up to date.

The reasons for merger failures are frequently rehearsed and the author believes that a not inconsiderable number of such combinations operating today are committing errors which will result in losses both to stockholders and the public. A principal cause of failure has been the paying out of working capital in dividends; and, for such failure, the banking interests which are behind the mergers have been in a large measure responsible. The author clearly recognizes the difficulties in securing efficient management in a newly formed merger. Old managers will not willingly accept subordinate positions. "You cannot make a deposed king into a crown prince."

Of special interest to super-industrial leaders is the chapter on patent pools and mergers which chart the promoter between the rocks of the trust laws on the one side and the patent pools on the other. The patent pool will do the trick. Although the author is friendly to big business, he recognizes its obligations to society at large, and vigorously counsels against economic oppression. The "service" idea is pushed to the front.

D. R. D.

Labor and Labor Organizations

The Labor Injunction. By FELIX FRANKFURTER and NATHAN GREEN.
(New York: Macmillan. 1930. Pp. 343. \$5.00.)

This is the first book ever published devoted exclusively to the use of injunctions in labor disputes. Its caliber is strikingly shown by the way it has been received. Although it has been out for three months it has not been noticed in *Law and Labor*, the organ of the League for Industrial Rights, which is the employers' clearing house for information upon the law of labor disputes. On the other hand, within one month after its appearance, this book was quoted at length in a decision of the Maryland Court of Appeals, reversing a labor injunction as too indefinite (*International Pocketbook Workers v. Orlove*, 148 Atl. 826). *The Labor Injunction* is a conclusive presentation of the abuses in labor injunction cases, with a clear and practical program for the correction of the same. Were it full of inaccuracies, it would have been torn to pieces long ere this in *Law and Labor*, and would not have seemed conclusive to any supreme court.

It is a description and criticism of the procedure in labor injunction cases in Massachusetts, New York, and the federal courts, dealing with all reported and many unreported cases in these three jurisdictions. What is presented is not a mere analysis of court decisions upon points of procedure, but an account of what actually happens in labor injunction cases as disclosed by a careful search of the records. This is done in a way to leave no room for doubt, questions, or controversies.

The abuses of injunctions in labor disputes appear in bold relief. In the great majority of labor injunction cases, there is either no hearing at all, or only a hearing confined to the pleas of the contending parties, supplemented by affidavits in their behalf. Further, injunctions are often issued upon insufficient proof, as is inevitable under a system in which the judge who allows the injunction often does not even see the witnesses. Injunctions forbid many acts which the statutes permit and prescribe in only vague terms the conduct prohibited. Yet for any violation, the defendants may be punished for contempt by the judge who issued the order, without right of trial by jury, and with only a limited review by higher courts. Injunctions, moreover, are made to apply not only to the named defendants but to "all persons whomsoever" who have actual knowledge of their issuance, thus becoming virtually codes of court-made law for entire communities, not mere adjudications of legal controversies. And the law of injunctions is the law of the trial court, not that of the supreme court, as the dispute is normally ended long before appeals can be decided. The tendency is for injunctions to become more and more sweeping.

The correction of these evils, or at least the first step in this direction,

the authors see in the injunction limitation bill which was presented in the spring of 1928 by a subcommittee of the Committee on the Judiciary of the United States Senate after extensive hearings and consultations with specialists. In behalf of this measure and of every provision therein, they make a most forceful argument: altogether the clearest statement of a practical program for reform that has yet been worked out.

This book does not exhaust the subject of injunctions in labor disputes. It does not concern itself with the social consequences of injunctions, which the authors acknowledge to be fully as important as the procedure in such cases. The account of the procedure is confined to the three jurisdictions mentioned, the authors being most careful to avoid generalizing for the country as a whole. Similar studies for other jurisdictions are still needed; and there is room for comparisons between the procedure in labor injunction cases and in other injunction suits. To the reviewer, it seems that many of the evils in the procedure in labor cases are due to the essentially different character of labor disputes from ordinary legal controversies, rather than to any discrimination against labor. This is contrary to the general impression conveyed by this book. The reviewer may be in error; but further studies along this line by competent scholars thoroughly versed in the law are in order.

While this book leaves some fields open for further investigation, it is a most timely study. The pending injunction limitation bill is not likely to receive much attention from the present Congress. Its endorsement, with but minor modifications, by the American Federation of Labor and the recent declaration by this organization that this is its foremost legislative demand and that all candidates will be quizzed as to their attitude upon this measure, however, foreshadows a determined effort to get the next Congress to enact new anti-injunction legislation. And not only is this book timely, but it is of unusual merit. Every statement made is documented. The footnotes and appendices are longer than the text, and there is a conclusiveness in the treatment of the subject that is seldom approached. Besides, it is clear and readable, with many sentences which are certain to be quoted again and again. Altogether, it is likely to prove one of the most influential studies ever made of any socio-legal question.

EDWIN E. WITTE

Wisconsin Free Library Commission
Madison, Wisconsin

Unemployment: An Analysis and Suggested Solution. By JOHN P. BIBBY. (London: P. S. King. 1929. Pp. viii, 136. 5s.)

The author of this book advances the thesis that "there is a wage fund limited by the amount of currency in the community, and wage

rates tend to rise beyond the point which enables them to be paid to the fully employed community out of the available wage fund" (p. 25).

Unemployment, he holds, is an index of the extent to which wage rates are too high to enable them to be paid out of the available wage fund. He therefore proposes to regulate wage rates by the unemployment index. He would have every trade union enter into a national agreement to adjust wage rates according to such an index. This index would be applied by each separate trade and in each locality. Thus, if a certain local trade union found that the employment of its members rose above 2 per cent, the wages of that grade of labor would, according to the national agreement, automatically be reduced by say 2.5 per cent. This reduction would have the twofold effect, first, of stimulating the demand for this grade of labor, and second, of inducing the more mobile members to enter some other trade or to go to some other region.

If, on the other hand, the unemployment should fall to 0.5 per cent, wage rates would then be advanced say 2.5 per cent. Adjustments should not be made oftener than every eight weeks at the most, in order to prevent violent fluctuation in wages.

In a world of seasonal and cyclical fluctuations and rapid technological change and shifts in demand, it does not seem likely to the reviewer that wage-earners would ever obtain an increase in wages if they had to wait until unemployment was reduced to 0.5 per cent.

Mr. Bibby argues that since 10 per cent of the wage-earners are at present unemployed in England and since this 10 per cent is receiving approximately half wages in the form of employment dole and poor relief, it follows that a 5 per cent cut in wages would absorb the unemployed. The available wage fund is just sufficient to employ at present 9 out of every 10 men, and to support the tenth on a half wage dole. The same wage fund would be able to employ, he thinks, the whole 10 men if wage rates were reduced 5 per cent. Would labor gain by the increased employment? Yes, since, as is argued, the same wage fund would now be able to buy about 10 per cent more goods. This would follow from the fact that a 10 per cent increase in employment should yield a 10 per cent increase in output, and this should result in a 10 per cent decline in prices.

Mr. Bibby does not realize that the wage fund is not a determining factor but itself a resultant of many variables, among which are the prices of the factors of production and their relative marginal productivities. You cannot determine how much wages should be reduced by simple estimates as to how much the "available wage fund" must be spread out to absorb the unemployed.

It is, of course, common knowledge among all economists that an abnormally high wage level will tend to create unemployment; and it

is quite pr
employed
economics
that if wag
of labor w
It might
made rap
also be ar
would nev
wage rate
economic ma
of any of
a thousa
Mr. Bibb
Mr. B
rates wit
for labor
is all a
With
similar
to be ef
tackled
Univ
ADAMS,
Bure
125.
CLARK,
of C
Pres
DOUGL
Hou
Pp.
FREEM
16.
106
GILSON
ben
Re
Pp
HEDG
in
18
LA F
in
\$2

is quite probable that *one* of the causes of the permanent body of unemployed that many countries have experienced since the war, is an uneconomic wage level. Indeed it can be argued, as Mr. Bibby does, that if wage rates were sufficiently plastic, the demand for and the supply of labor would be exactly equal and there would be no unemployment. It might also be argued that if cost-reducing improvements could be made rapidly enough, there would be no employment. Again it might also be argued that if the capital costs were sufficiently plastic, factories would never stand idle and there would be no unemployment even though wage rates were rigid. If there is enough *give* in some part of the economic machine to absorb the entire shock of *change*, no unemployment of any of the factors will occur, and this "give" may be distributed over a thousand factors or it may be concentrated on one (wage rates) as Mr. Bibby proposes to do.

Mr. Bibby overlooks the fact that it is quite possible that high wage rates with accompanying unemployment will yield a larger wage income for labor as a class than a lower wage rate with no unemployment. It is all a question of the elasticity of the demand for labor.

With all its weakness the book makes one good suggestion, somewhat similar to that made by Professor Clay, *viz.*, that if wage reductions are to be effective as a means of relieving unemployment, the job must be tackled on a nation-wide basis.

ALVIN H. HANSEN

University of Minnesota

NEW BOOKS

- ADAMS, W. W. *Coal miners fatalities in the United States, 1928*. U. S. Bureau of Mines bull. 319. (Washington: Supt. Docs. 1930. Pp. vi, 125. 20c.)
- CLARK, M. R. *A history of the French labor movement, 1910-1928*. Univ. of California pubs. in econ., vol. viii, no. 1. (Berkeley: Univ. of California Press. 1930. Pp. 174. \$2.)
- DOUGLAS, P. H. *Real wages in the United States, 1890-1926*. (Boston: Houghton Mifflin, for the Pollak Foundation for Economic Research. 1930. Pp. xxviii, 682. \$7.50.)
- FREEMAN, I. H. *Wage incentives in the factory*. Official pubs., vol. xi, no. 16. (New York: National Assoc. of Cost Accountants. 1930. Pp. 1053-1064. 75c.)
- GILSON, M. B. and RICHES, E. J. *Employers' additional unemployment benefit schemes in Great Britain*. Reprinted from *International Labour Review*, vol. xxi, no. 3. (Geneva: International Labour Office. 1930. Pp. 47. 1s.)
- HEDGES, R. H. and WINTERBOTTOM, A. *The legal history of trade unionism in England*. (New York and London: Longmans Green. 1930. Pp. 189. \$3.)
- LA DAME, M. *The Filene Store: a study of employes' relation to management in a retail store*. (New York: Russell Sage Foundation. 1930. Pp. 541. \$2.50.)

The Filenes represent the liberal in contrast to the grasping type of employers. Edward A. Filene stated in 1904, "We agreed to do nothing for our people, but to help them with all our minds and strength to do everything for themselves." After this idealistic statement one might anticipate participation of employees in management and ownership. But, perhaps the purposes as stated in the charter of the Filene Coöperative Association express the idealistic implication more correctly: "To give its members a voice in their own government; to increase their efficiency; to add to their social opportunities; to sustain a just and equitable relation between employers and employees." Still more vividly do the business aims of the store—permanence of the company; profit to the owners and service to customers—reveal the loftiness of the employers' ideals and the course the actual experience would probably follow.

While the book was going through the press the Filene Company was expanding. A combination was effected with four other companies, so we know the first two business aims were realized and probably the third.

In regard to participation in management, the Filene Coöperative Association was established with power to govern discharges and transfer of employees or to deal with any other dispute through the Arbitration Board, and to nominate four of the eleven members of the Board of Directors. What about the results? There is an interesting experience in arbitration of discharge cases. The stenographic report of trial of John Dodge, elevator operator, *v.* the management is illuminating. On the other hand, representation on the Board of Directors has been rather meaningless. Gradually control has been concentrated in the hands of stock-holding managers. This seems to be the usual experience in large companies and will probably continue unless as Mary Van Kleeck says "the plans for employee relations are reinforced by a more impersonal power than the good-will of the original owners."

Reduction of hours of work came, but not through the influence of the Coöperative Organization to any extent (except winter vacations). Profit-sharing was practised with participation of the Filene Coöperative Association in the formulation of bonus plans. Later, steps were taken to substitute for this participation, distribution by the operating committee with review by the management. No increases in wages had been obtained by the coöperative. The largest group of workers, thirty-seven per cent, had rates of pay between \$15 and \$20 per week. Recommendations of the Minimum Wage Board were followed but not through any initiative of the workers. Most elaborate welfare work, including provisions for sickness and accident benefits, has been carried out, partially or entirely through the Filene Coöperative Association.

The social reformer will no doubt be disappointed in the Filene Store but, as Miss La Dame states, "For stores and other companies, the experience as a whole, over a quarter of a century, has the value of a patient and detailed experiment with both positive and negative results."

The study of the Filene Store was carefully made by Miss La Dame, under the direction of Mary Van Kleeck, director of the Department of Industrial Studies of the Russell Sage Foundation. It is factual with abundant detail including twenty-four tables, which seem to be statistically adequate.

JOHN B. EWING

LEWIS, E. J.
tion, and
tween ca
8-hour l
Pp. 105
MORRIS, V.
in hist.,
1930. 1
MUKHTAR,
Pp. x, 3
SHYNE, J.
Hill: U

Besic
acter o
of the
ring, W
journal
it is br
than M
the ot
count.
ing the
individu
North
and a
Of
compa
were
error
from
avera
media
the f
famil
place
floati
or le
move

H
stri
outl
that
a m
Sou
thou
fact
text
is n
to b
?

bel

- LEWIS, E. A., compiler. *Compilation of laws relating to mediation, conciliation, and arbitration between employers and employees, laws disputes between carriers and employers and subordinate officials and Labor Board, 8-hour laws, employers' liability laws.* (Washington: Supt. Docs. 1930. Pp. 105. 15c.)
- MORRIS, V. P. *Oregon's experience with minimum wage legislation.* Studies in hist., econ. and public law, no. 320. (New York: Columbia Univ. Press. 1930. Pp. 236. \$3.75.)
- MUKHTAR, A. *Factory labour in India.* (Madras: Annamalai Univ. 1930. Pp. x, 328.)
- RHYNE, J. J. *Some southern cotton mill workers and their villages.* (Chapel Hill: Univ. of North Carolina. 1930. Pp. x, 214. \$2.50.)

Besides the above, there are three recent works dealing with the character of the southern cotton mill operative—Potwin, *Cotton Mill People of the Piedmont* (1928); MacDonald, *Southern Mill Hills*; and Herring, *Welfare Work in Mill Villages*, in addition to a number of informing journal articles. Dr. Rhyne's book is in many respects the most revealing; it is broader in scope than Miss Herring's, and statistically more adequate than Miss MacDonald's, while its scientific spirit distinguishes it, as also the others, from the pro-manufacturer pleading of Miss Potwin's account. The author, through personal interviews, has secured data concerning the living conditions and economic backgrounds of 500 families, 2,362 individuals, in four typical mill villages of his native Gaston County, North Carolina—a rural mill village, a cotton mill town, a suburban village, and a company-owned town.

Of the houses in which these people lived, 85 per cent belonged to the company, 12 per cent were dwellings of home owners, and 2.6 per cent were rented from others than the employer. The wage data are subject to error because given by the operatives themselves. Individual wages varied from \$7 per week to \$37 per week; family income from \$10 to \$85; the average weekly income per family (all of this is full time) was \$28.65, the median \$25.43, and the modal \$16.07. In 67 per cent of the cases the family income was less than \$30 per week. As regards mobility, the families divide into a larger stable group (61 per cent remained in one place more than two years, 78 per cent more than one year), and a smaller floating group (22 per cent had an average length of residence of a year or less, 7 per cent moved oftener than twice a year, and one family had moved more than a hundred times, or once every 1.2 months!).

Had Dr. Rhyne's book been written since instead of before the recent strikes in the cotton mill South, he would have been more hopeful in his outlook upon the operatives' future. The present union activity proves that the spark of social initiative is far from being stamped out. It is a mistake to assume that there is anything truly peculiar in the industrial South. The same consequences follow industrialization there as elsewhere, though in this particular the pace may be slower, in that faster. The manufacturers and many who speak with them have sought to represent that the textile South shall never see organization of the workers, that unionism is not indicated in the economic horoscope. The South, it would seem, is to be immune from familiar penalties of exploitation.

The student of economic history is not impressed. Not only does he believe that like results are apt to follow like causes, but he is prepared

for sudden accelerations in the process. The southern cotton mill worker through a long stagnation in agriculture and a pronounced industrial paternalism, has been asleep. But now he is rousing, and his native self-respect, never quite sacrificed, promises to become the basis of a new economic independence.

BROADUS MITCHELL

SELEKMAN, B. M. and SELEKMAN, S. K. *British industry today: a study of English trends in industrial relations*. 1st ed. (New York and London: Harper. 1929. Pp. 290. \$3.)

The central theme of this book is that the attitude of British labor today is one of coöperation with enterprise and that if British industry is not finally readjusted and rejuvenated it will be due rather to the obstinate individualism and conservatism of employers than to any obstructive tactics on the part of labor. If the relations between capital and labor in times past have been too largely concerned with rival claims to the joint product of industry, this has been remedied partly through the painful experiences to which they have been subjected during the post-war depression and perhaps partly (although this is not here specifically stated) through the leavening influence of Whitley councils and shop-committees. The new attitude of the unions is demonstrated in the Mond-Turner conferences between representative employers and the General Council of the Trades Union Congress first suggested by President George Hicks before the Congress of 1927 in Edinburgh. Although few if any concrete results of these conferences could be noted at the time this book went to press or even at the present date, the authors regard them as an experiment in industrial reconstruction more significant, at least for the English-speaking world, than other experiments in that direction being carried on in Soviet Russia, in Germany, or under the dictatorship of Mussolini in Italy. At last, if employers are not too pig-headed, collective bargaining promises to become something more than a wage-agreement. It may even satisfy some of the aspirations of the gild socialists of a former day for a share in management.

The only chapter of the book that seems somewhat out of line with this general scheme is that on unemployment insurance; and this is devoted principally to showing the difficulties which such a system has had to contend with in a long period of chronic unemployment, and to correcting the perverse American misconception of it as a "dole."

The book is heralded in the first chapter as the result of prolonged first-hand inquiry; but perhaps because the habit of seeking documentary support and corroboration is so strong among scholars, there are comparatively few references to personal data. The first three chapters and the greater part of the remainder could have been written almost as well from the vantage-ground of the New York Public Library. This lack of new material, together with some evidence that the book was a bit too long in preparation or in press to be perfectly fresh, is the only possible cause of disappointment to those who have kept in reasonably close touch with British developments. Even so, we should rejoice that so much of what we knew already is now systematized and confirmed by two competent writers.

WARREN B. CATLIN

WEDER, H.
Pp. 9.)

With
Douglas

W., L.
cities
(Peiping
Chieh.

The five-
industry

At t
lar five
ployed

The r
whom

work
about

Eight
estab

indus
Altho

ment
on th

the f
in 19

ten
251

E
gar

wee
the

com
por

a r
act

em
ati

sta
an

an
lov

five
fa

of
st

it
h

c

WEBER, H. J. *A living wage*. (Chicago: Author, 29 S. La Salle St. 1930. Pp. 9.)

With introductions by Professors Thomas N. Carver and Paul H. Douglas.

WU, L. T. K. *An analysis of labour disputes in Hopei Province and the cities of Peiping and Tientsin, January, 1927—June, 1929*. Bull. iv. (Peiping: Institute of Social Research, 6 Tung Ho Yen, Nan Chang Chieh. 1930. Pp. 21.)

The five-day week in manufacturing industries. (New York: National Industrial Conference Board. 1929. Pp. xi, 69. \$1.50.)

At the close of 1928 about 400,000 employees were operating on a regular five-day week schedule. Of this number not quite 217,000 were employed by the 270 companies investigated in connection with this report. The remainder of the 400,000 consisted of organized workers, most of whom were employed as painters, plasterers, electrical workers, and fur workers. The 217,000 employed by the manufacturing firms constituted about 2.6 per cent of all the industrial wage earners in the United States. Eighty per cent of this group worked for the Ford Motor Company. The establishments which have adopted the plan represent a large variety of industries. Seventy per cent of them are located in New York State. Although the garment industries account for 60 per cent of all establishments covered, they employ only 5 per cent of the total number of workers on the five-day schedule in the manufacturing industries. According to the findings of the Conference Board, the five-day week was first adopted in 1908 by a New England spinning mill. During the next ten years only ten additional firms adopted the plan. In the period 1918-1927, however, 251 firms entered the group, most of them since 1923.

Eighty-six per cent of the 219 companies furnishing information regarding hours had reduced their total number of hours of operation per week in changing to the five-day schedule. In the highly organized plants the five-day week was secured through union efforts, and was usually accompanied by a 40-hour week. Seventy-five per cent of the companies reporting upon output declared that there had been no reduction in output as a result of the adoption of the five-day week. More than 25 per cent actually reported an increased output. Among other advantages to the employers was the elimination of the uneconomical overhead costs of operating the plant on Saturday half-days, when output was as a rule below standard; the opportunity for the careful overhauling and repair of plant and equipment on Saturday forenoons; improvement in employee attendance and punctuality; and a better satisfied working force, resulting in lower labor turnover. As a rule only those employers upon whom the five-day week had been forced by the unions regarded the plan with disfavor. The employees were almost universally in favor of it.

The report concludes that the favorable evidence offered by a majority of the companies using the plan removes "the five-day week from the status of a radical and impractical administrative experiment and places it among plans which, however revolutionary they may appear to some, have demonstrated both practicability and usefulness under certain circumstances."

EDWARD BERMAN

- Forced labour.* International Labour Conference, 14th sess., 2nd discussion, report 1. (Geneva: International Labour Office. 1930. Pp. viii, 227.)
- Guide to the Unemployment Insurance Act, 1930.* (London: The Labour Party. 1930. Pp. 8. 1 1/2 d.)
- Hours of work in coal-mines.* International Labour Conference, 14th sess., report 3. (Geneva: International Labour Office. 1930. Pp. 108.)
- Hours of work of salaried employees.* International Labour Conference, 14th sess., 2nd discussion, report 2. (Geneva: International Labour Office. 1930. Pp. 265.)
- International Labour Conference, fourteenth session, Geneva, 1930: report of the director.* Parts 1 and 2. (Geneva: International Labour Office. 1930. Pp. 320; 298.)
- International Labour Conference: twelfth session, Geneva, 1929.* Vol. I. First and second parts. Third part (appendices). Vol. II. Report of the director presented to the Conference. (Geneva: International Labour Office. 1929. Pp. lxvi, 644; 647-1149; iv, 534.)
- International Labour Conference, thirteenth session, Geneva, 1929.* (Geneva: International Labour Office. 1929. Pp. xlvii, 467.)
- International survey of legal decisions on labour law, 1928. Supplement: United States and index.* (Geneva: International Labour Office. 1929. Pp. xvi, 70. 40c.)
- Lay-off and its prevention.* (New York: National Industrial Conference Board. 1930. Pp. ix, 86. \$1.50.)
- Planning and control of public works. Report of the Committee on Recent Economic Changes of the President's Conference on Unemployment, including the report of Leo Wolman of the National Bureau of Economic Research.* (New York: National Bureau of Economic Research. 1930. Pp. xxviii, 245.)
- Report on an enquiry into wages and hours of labor in the cotton mill industry, 1926.* (Bombay: H. M. Stationery Office. 1930. Pp. iii, 172.)
- Reports on equal pay for equal work and first steps towards a domestic workers' charter.* Presented by the Standing Joint Committee of Industrial Women's Organizations to the National Conference of Labour Women, London, June 3-5, 1930. (London: The Labour Party. 1930. Pp. 24. 1d.)
- Sickness among industrial employees.* Public health reprint 1347. (Washington: Supt. Docs. 1930. Pp. 10. 5c.)

Money, Prices, Credit, and Banking

- Cost of Living Studies. II. How Workers Spend a Living Wage: A Study of the Incomes and Expenditures of Eighty-two Typographers' Families in San Francisco.* By JESSICA B. PEIXOTTO. University of California pubs. in econ., vol. V, no. 3. (Berkeley: University of California Press. 1929. Pp. vii, 245. \$1.25.)

In this study, Dr. Peixotto analyses in detail the income and expenditures of eighty-two union typographers of San Francisco for the year 1920-21, in order to put to the test "the time-worn statement that wage-earners who command increased wages promptly display irrationality in

choice." Her conclusion is that rationality prevails. Through a careful system of interviews and schedules, materials were assembled concerning "a fairly homogeneous number of settled American middle-class families" in the trade, a group which was at the peak of earning power. The average family studied numbered 3.4 persons. The total family income of all but 21 per cent of the workers centered between \$2,000 and \$3,500, the median being \$2,600. Of the earnings, the predominant share was derived from typographical work. More than half of the men received incomes of between \$2,500 and \$2,999 from their regular employment. The median was \$2,507.50.

It is thus apparent that the families characteristically lived on the men's regular wages. The women were, with few exceptions, housewives. Only four had full-time outside work. The children likewise supplemented the family income but little. Of the twenty-three over the legal working age, only two were contributing their full share to family support through outside employment. But nine families took in boarders.

The standard of living of the group is characterized as plain but comfortable. Food absorbed 32.4 per cent of the income of the median family, clothing 11.4 per cent, shelter 14.7 per cent, house operation 7.3 per cent, and miscellaneous 30.9 per cent. Individual expenditures for each of these items varied greatly, some families stressing food, some clothing, and others shelter. The hiring of domestic help was relatively uncommon.

Under the catch-all classification of miscellaneous, one finds a wider variety of items which absorbed nearly one-third of the aggregate expenditures. "Three out of five had telephones; one in five had an automobile. The children went to the public schools; customarily they finished the high school before being sent to work. About half the families contributed to the support of a church. To a man, they paid their own doctors' bills without aid from public clinics or hospitals." Recreation absorbed 6.1 per cent of the total family expenditures, investments 6.0 per cent, union dues 5.3 per cent, medical care 4.7 per cent, incidentals 3.3 per cent, vehicles 2.4 per cent, education 2.1 per cent, tobacco 1.5 per cent, the church 0.4 per cent, and charity 0.3 per cent.

Despite the fact that the study is ten years old, it is of substantial value because of the excellent method used and on account of the view it gives of the expenditures of a particular group. It is impossible, however, to concur in Dr. Peixotto's optimistic view that the study clearly indicates rational spending or that much light is thrown on the choices which wage earners are likely to make when their incomes are substantially increased.

Clearly, the printers here studied are a group who by the very nature of their occupation are set apart from the large body of unskilled and

semi-skilled workers. Carrying on as they do the traditions of a well-recognized craft, is it not likely that they will be guided by tastes quite different from those of other workers who may attain a measurable affluence? Moreover, even the choices of the printers are quite open to comment. The food costs per capita *per diem* varied from the thirteen who spent between 25 and 49 cents to the fourteen who spent between \$1.00 and \$1.24. Six workers had food expenditures of \$1.25 or more for each person. Similarly, clothing costs varied from the five frugal families dressing on \$100 a year to the family which expended \$1,384. In housing, in the purchase of furniture, in patronage of the movies, in the buying of automobiles, and in the use of tobacco, individual choices brought widely differing distributions. How may one determine whether the decisions were rational?

It would seem that cost of living studies, especially of subsistence plus groups, cannot go beyond the measurement of the prevailing facts. If, in 1930, Dr. Peixotto's eighty-two printers, with only slightly increased incomes, were found to be indulging in \$1,000 automobiles and in expensive radio sets while curtailing housing and clothing budgets, would she deem them irrational?

COLSTON E. WARNE

University of Pittsburgh

NEW BOOKS

- ATKINS, P. M. *Bank secondary reserve and investment policies.* (New York: Bankers Pub. Co. 1930. Pp. vii, 158. \$2.50.)
- BAÑOS, O. F. *Estudio de la fluctuaciones del cambio de la peseta.* (Santiago: Tip. de "El Eco Franciscano." 1930. Pp. 92. 5 pesetas.)
- CAROTHERS, N. *Fractional money: a history of the small coins and fractional paper currency of the United States.* (New York: Wiley. 1930. Pp. xiii, 372. \$4.)
- CONNING & COMPANY, compilers. *The leading New York banks: a seventeen year comparison.* (Hartford: Authors. 1930. Pp. 33.)
- DUNBAR, C. F. *The theory and history of banking.* 5th ed. rev., by O. M. W. Sprague. (New York: Putnam. 1930. \$2.)
- GIRAUD, R. *La concentration bancaire: un aspect de la rationalisation.* (Paris: Ed. du Capital.)
- GONNARD, R. *Précis d'économie monétaire.* (Paris: Librairie du Recueil Sirey. 1930. Pp. 292. 20 fr.)
- HAHN, A. *Volkswirtschaftliche Theorie des Bankkredits.* (Tübingen: J. C. B. Mohr. 1930. Pp. 156.)
- JAMES, F. C. *The economics of money, credit and banking.* (New York: Ronald. 1930. Pp. xvi, 482. \$4.)
- KÄPPELI, R. R. *Der Notenbankausweis in Theorie und Wirklichkeit.* Probleme der Weltwirtschaft, Band 48. (Jena: Fischer. 1930. Pp. xv, 258. Rmk. 12.)
- KNIFFEN, W. H. *The business man and his bank.* 2nd ed. (New York: McGraw-Hill. 1930. Pp. 332. \$3.)

- OWENS, R. N. and HARDY, C. O. *Interest rates and stock speculation: a study of the influence of the money market on the stock market.* 2nd ed., rev. (Washington: Brookings Institution. 1930. Pp. xiv, 221. \$2.50.)
- PAPI, G. U. *Studi sulla teoria monetaria dei cicli industriali: rapporti fra interesse e sconto.* Estratto dal *Giornale degli Economisti e Rivista di Statistica*, Marzo, 1930. (Città di Castello: Soc. An. Tip. "Leonardo da Vinci." 1930. Pp. 38.)
- PHELPS, C. W. *American banks abroad.* Reprinted from the *Bankers Magazine*, November and December, 1929, and January, 1930. (Chattanooga, Tenn.: Univ. of Chattanooga. 1930.)
- RAMON, G. *Histoire de la Banque de France, d'après les sources originales.* (Paris: B. Grasset. 1929. Pp. 501.)
- REDFIELD, R. A. *The law of commercial paper.* (New York: Banking Law Journal. 1930. Pp. 528. \$6.50.)
- RIEFLE, W. W. *Money rates and money markets in the United States.* (New York and London: Harper. 1930. Pp. xviii, 259. \$4.)
- ROBINSON, L. N. and STEARNS, M. E. *Ten thousand small loans: facts about borrowers in 109 cities in 17 states.* (New York: Russell Sage Foundation. 1930. Pp. 159. \$2.)

This book is an outgrowth of the Russell Sage Foundation's study of the small loan problem, a study resulting in the writing of the Uniform Small Loan law sponsored by the Foundation and now adopted, with some modifications, by twenty-four states. The law is based upon the assumption that licensed companies, charging three and one-half per cent per month on unpaid balances, perform a useful service to the necessitous borrower and relieve him from reliance upon the grasping loan shark. It is contended that the high rate of interest is necessary as a means of inducing legitimate capital to enter the field. The authors have selected for analysis 10,000 small loans, taken from 109 cities and 17 states. Unfortunately the results of this study have remained unpublished for seven years after the completion of the investigation. Publication at an earlier date would have been helpful in subjecting small loan companies to scientific analysis.

A great deal of light is thrown upon the social status of the borrower, his economic status and his general living conditions. The authors are modest in their conclusions from this sampling process and have suggested both positive and negative lessons learned from the questionnaires sent out. In a brief review one can only call attention to some of the most interesting facts revealed. Such are the following: 7,147 of the 10,000 loans were made jointly to husband and wife; 82 per cent were made to married people living together; most of the loans, absolutely and relatively, were made to native whites; borrowers with no children were most common; 97 per cent of the borrowers were usually gainfully employed; 8 per cent unemployed at the time of making the loan; 23 per cent of the women borrowers were boarding-house keepers; nearly one-third of all borrowers reported unemployment either at the time of the loan or within the preceding twelve months; more than half the men borrowing reported weekly wages less than thirty-three dollars and more than half the women weekly wages less than twenty-one dollars; one-third of the borrowers owned real estate; 80 per cent carried life insurance; less than 30 per cent had savings or some available cash; 81 per cent had lived five years or more in the city in which they borrowed; 70 per cent lived in rented homes;

one-half of the loans were for less than \$100 and the arithmetic average was between \$118 and \$127.

It was found that 42 per cent of the loans were renewals at the same offices at which earlier loans were made and that less than one-third of the patrons were new customers. This latter observation is highly significant in view of the rate of interest paid by the borrowers for what approaches continuous loans. The authors consider their conclusions unsatisfactory as to the causes for which loans were made. The Russell Sage Foundation could perform a valuable service by making another study, using the experience of this one, based upon the reasons for which loans are made. This study is made with care and the authors do not attempt to make unwarranted conclusions from their data.

CLYDE OLIN FISHER

SCAGNETTI, G. *Alcuni aspetti fondamentali del federal reserve system negli Stati Uniti dell'America del Nord*. Estratto dalla *Rivista di Politica Economica*, fascicolo iv a xi, 1929, e iii, 1930. (Rome: Tip. Terme. 1930. Pp. 87.)

WARBURG, P. M. *The federal reserve system: its origin and growth. Reflections and recollections*. Vols. I and II. (New York: Macmillan. 1930. Pp. xix, 858; vii, 899. \$12.)

The cost of living in the United States, 1914-1929. (New York: National Industrial Conference Board. 1930. Pp. xvi, 190. \$2.50.)

The movement to unify the laws regarding bills of exchange and checks. Being one of a series of studies on matters of current international interest. (Geneva: League of Nations Assoc. of the U. S. 1930. Pp. 7. 10c.)

Public Finance, Taxation, and Tariff

State Income Taxes. Vol. II. *Analysis of Income Taxes in State Fiscal Systems*. (New York: National Industrial Conference Board. 1930. Pp. xiv, 214. \$2.50.)

This work continues the discussion of state income taxation noted in the June issue of the *AMERICAN ECONOMIC REVIEW*. While the first volume examines the historical development of income taxes, state by state, in the twenty commonwealths which impose them, the present volume is devoted to a systematic cross-section analysis of the operation of such revenue measures. The first six chapters deal with problems connected with the definition of income for tax purposes. Chapter 2 makes it clear that such taxes are levied on fiduciaries and partnerships (sometimes as individuals but occasionally as separate entities), individuals and corporations. The third, fourth and fifth chapters analyze provisions for exemptions: (a) of ordinary income on economic and legal grounds, such as salaries of public officials and income from public securities; (b) of capital transfers of certain kinds like proceeds of life insurance policies, receipts from workmen's compensation and damages for injuries, and interest from savings deposits; and (c) of persons for the

minimum of subsistence or care of dependents. The sixth chapter deals comparatively with deductions from gross income permitted in order to arrive at net taxable income.

Chapter 7, which is essentially the second part of the study, is an analysis of the rate structures effective in the several states. The corporation and individual rates are separately examined, the theories justifying progressive rates carefully set forth and applications made to practice in the various commonwealths, the wisdom of property tax offsets criticized, and the elasticity of income taxes suggested. It is in this chapter that the theorist finds most satisfaction.

The remainder of the text (pp. 92-184) is devoted to the administration and results of the income taxes levied by the several states. One of the most interesting parts of this division has to do with legal and economic considerations involved in imposing the tax and assigning income to the proper jurisdiction. The first chapter of this discussion (chap. 8) concerns particularly the relative merits of information and collection at the source; the second (chap. 9), the assignment of the income of residents and non-residents derived from sources within and without the state, including particular emphasis on the competition of debtor and creditor states; and the third (chap. 10), the allocation of the net income of interstate corporations for purposes of taxation. Chapter 11 is devoted to technical administrative problems, while chapter 12 analyzes the fiscal results of state income taxes as a whole—as distinguished from the state by state statistics presented in the first volume. The final chapter, aside from a very useful general summary, presents the results of the investigation of the incidence and economic effects of the income tax. Among other things, emphasis is placed on: (a) the possibility that a small number of persons may avoid the tax by change of domicile or otherwise; (b) the improbability that any large exodus of capital or important impediment to the importation of capital will result from the imposition of income taxes; and (c) the general agreement that income taxes are not shifted by the taxpayers.

As a whole, the work, although marred by lack of uniformity in footnote references and other minor, editorial details, is a very satisfactory contribution to the literature of taxation. It is more useful by virtue of the fact that it continually compares practice in the several states with the federal statute and with the drafts of model laws prepared by a committee of the National Tax Association. It is more highly valuable also because it contains an analytical table of contents (but unfortunately no index), excellent charts, and the statistics of state income tax experience, well presented in tabular form.

JAMES W. MARTIN

University of Kentucky

NEW BOOKS

BRITZELMAYR, W. *Vermögensteuer oder Nachlasssteuer? Eine Forschung über die Methoden der gleichmässigen Erfassung des fundierten und unfundierten Einkommens durch eine ergänzende Vermögens und Erbschaftsbesteuerung neben der Einkommensteuer unter Verwendung der deutschen, englischen und französischen Erfahrungen.* (Jena: Fischer. 1930. Rmk. 3.)

BRUNET, R. *Les finances publiques du temps présent.* (Paris: Ed. J. Tallandier. 1929. Pp. 286.)

COOMBS, W. *Taxation of farm property.* U. S. Dept. of Agric., tech. bull. no. 172. (Washington: Supt. Docs. 1930. Pp. 75. 15c.)

Dr. Coombs has analyzed the results of some twenty or twenty-five studies of the taxation of farm property in about eighteen states. The information, which has been collected in the earlier studies concerning the amounts paid by agricultural enterprise as property taxes, the trends in property taxation, the relation of property taxes to agricultural incomes, the relation of assessed valuation of farm property to the sales value, and the relation of taxes to farm values, has been carefully analyzed. Attention is given also to the incidence and effects of farm taxes and to the relation between the tax burden on farm and on urban property. Finally, the programs for fiscal reform are discussed and evaluated.

J. W. MARTIN

COONS, A. G. *The foreign public debt of China.* A thesis. (Philadelphia: Univ. of Pennsylvania. 1930. Pp. xi, 251. \$3.)

MORRISON, H. C. *School revenue.* (Chicago: Univ. of Chicago Press. 1930. Pp. x, 242. \$2.50.)

MURPHY, L. S. and HERBERT, P. A. *Digest of state forest tax laws enacted or revised during the calendar year 1929.* Progress rep. of the Forest Taxation Inquiry, no. 7. (Washington: Supt. Docs. 1930. Pp. 16, mimeographed.)

ROSENBERG, K. *How the ratepayer is governed.* (London: Williams and Norgate. 3s. 6d.)

SIMPSON, H. D. *The tax situation in Illinois.* Studies in public finance, research monograph no. 1. (Chicago: Institute for Research in Land Economics and Public Utilities, Northwestern University. 1929. Pp. 104. \$1.50.)

Dr. Simpson has given one of the most adequate illustrations yet available of the complete collapse of the general property tax in a state depending almost exclusively on this source of revenue. His success has rested in part on the fact that he has had adequate resources and used them effectively and in part on the fact that he has selected an admirable illustration, namely, the State of Illinois. The gross inequalities found in the operation of the tax in that state may be illustrated by pointing out that in 1927 the average deviation of the assessments from the average rate of assessment was, in the state as a whole, 45.1 per cent (p. 55); in the City of Chicago, 40.0 per cent (p. 9); in La Salle County, 47.5 per cent (p. 40); in St. Clair County, 48.0 per cent (p. 41); and in Williamson County, 50.1 per cent (p. 41). The regressiveness of the tax due to differences in the efficiency of assessment of small and large

property
is seemi
After
Dr. Sim
one of
property
in revis
mation
specific
tration
mission
generou
confer
constru
on a c
in Co
shall b
sugges
local t
be mo
of ass
the r
levies

SMITH,
Flori
Colum
STUDEN
261
TH
clud
TH
borro
Unit
taxa
pern
anal
the
terr
suc
diff
of
trou
per
of
lim
tak
of
till

property holdings, both in urban (p. 36) and rural (p. 38) communities, is seemingly the most extreme yet disclosed by any investigator.

After the careful analysis of facts, covering four-fifths of the volume, Dr. Simpson proposes certain remedies. His first suggestion, incidentally one of the most important, is that "relief" from the burden of general property taxation is not to be found in the reduction of taxes but, if at all, in revisions of the tax system designed to secure a reasonable approximation of equality among different classes of taxpayers. His major specific prescriptions have to do with the reconstruction of tax administration in the state. He would have the present five-member tax commission abolished and a three-member body substituted. He argues that generous authority for supervision, reassessment and research should be conferred upon the commission. It is necessary also, in his view, to reconstruct the local administration of assessment so that it shall be placed on a county basis with an elective full-time assessor in charge—except in Cook and St. Clair Counties where it is recommended that the assessor shall be appointed by the president of the county commission. He also suggests that legal provision be made for full publicity in matters of local tax assessment. A third suggestion is that the property tax itself be modified on the basis of frank acknowledgment of the impossibility of assessing certain kinds of personal property. The volume closes with the recommendation of a supplementary general income tax similar to levies now in force in Wisconsin, North Dakota and Virginia.

JAMES W. MARTIN

SMITH, C. A. *Some relationships existing in school expenditure among Florida counties*. *Contribs. to educ.*, no. 352. (New York: Teachers Coll., Columbia Univ. 1929. Pp. viii, 54.)

STUDENSKY, P. *Public borrowing*. (New York: National Municipal League, 261 Broadway. 1930. Pp. vii, 137.)

There isn't a wasted word in this little book. Moreover, the words included are used well.

The initial chapter on the development and present scope of public borrowing, is a concise history of public borrowing, especially in the United States. Also this chapter introduces the issue of borrowing versus taxation. It is followed by a chapter on the trend of expenditures for permanent improvements. Matters of chief interest in this division are an analysis of the causes of periodical fluctuations in capital expenditures, and the argument that all expenditures for permanent improvements are interrelated and must be considered in the aggregate rather than singly. The succeeding chapter on defaults and bankruptcies emphasizes the financial difficulties which arise from unplanned borrowing. Much to the interest of present day bondholders, as well as students of public finance, such troubles are shown to be matters not only of mid-Victorian and prior periods, but also of modern times. The next consideration is a treatment of legal restrictions on public borrowing, in which the limitations of debt limits are indicated. The chapter on the all-loan versus the no-loan policy takes middle ground in justifying neither policy and in favoring a blending of borrowing with taxation. In a discussion of the term of loans, heavy artillery is brought to play on the policy of long-term loans. The chapter

on the consolidation and long-term budgeting of loan funds gives the plan of borrowing followed by a number of American cities. Also it includes a short treatment of the public works reserve fund accumulated from annual revenues. This is illustrated by the Milwaukee savings fund.

The last two chapters of the book are on borrowing combined with taxation. The first of these criticizes the theory that revenue-producing improvements should be financed by borrowing and non-revenue producing improvements by taxation. The issue of borrowing versus taxation is said to be the same whatever the direction of the expenditure: "Is it more economical to pay immediately from current sources, or is it more economical to defer payment? The issue in either case is the distribution of burdens between the present and the future." A number of other plans for combining borrowing with taxation are treated. The last chapter is devoted to the author's plan for such a combination. He outlines a method for determining the normal ratio of expenditures for permanent improvements to expenditures for current services, and proposes that any excess of expenditures for permanent improvements over this normal ratio be financed by borrowing.

M. SLADE KENDRICK

THEILL, K. *Die Einkommensteuern der grossen britischen Dominions unter Einschluss Britisch Indiens*. Finanzwissenschaftliche und volkswirtschaftliche Studien, Heft 18. (Jena: Fischer. 1930. Pp. x, 150. Rmk. 7.50.)

TUCKER, J. I. *Special assessments in California: a simplified discussion of principles*. (Los Angeles: Author, 203 Wilson Bldg. 1930. Pp. 342. \$3.50.)

VILLARD, O. G. *The tariff scandal*. (New York: League for Independent Political Action, 52 Vanderbilt Ave. 1930. Pp. 15. 10c.)

WHITE, C. P. *Finances of Tennessee*. (Knoxville: Univ. of Tennessee. 1929. Pp. 67.)

The first chapter is devoted to an analysis of the revenue system in general, the third to an historical sketch of Tennessee taxation, chapter 5 to the question of taxing intangibles, and chapter 6 to suggestions for securing tax revenue for state purposes from new sources. In the intervening chapters 2 and 4 are discussions of the growth and distribution of expenditures and of the state indebtedness respectively. The work as a whole is well illustrated by means of charts and tables, and contains reasonably adequate statistical material.

J. W. MARTIN

Assessors' manual. (Madison: Wisconsin Tax Commission. 1930. Pp. 184.)

In this little volume, Judge Rosa has presented one of the most useful handbooks of its kind. Although a considerable part of it (especially Parts I and III) is peculiarly useful to Wisconsin assessors, the entire volume is full of helpful suggestions both to tax officials in charge of property tax administration everywhere and to students of public finance.

J. W. M.

The case for Tasmania, 1930. Statement of a claim for an increased special grant from the commonwealth. (Tasmania: H. M. Stationery Office. 1930. Pp. iv, 74.)

Veröffentlichung für Georg von Schanz. Vols. I and II. (Tübingen: J. C. B. Mohr. 1928. Pp. 880.)

Thirty-six finance experts from ten countries have contributed to this anniversary gift in honor of the venerable editor of the *Finanz-Archiv*. The themes vary from a brief statement concerning World War debt settlements (by Harold G. Moulton) to detailed historical treatment of concepts of financial theory.

The authors modestly disclaim having reached their goal of presenting a unified treatise on the chief problems of public finance, but have not fallen far short of fulfillment of their plans. Admirable in many of the papers is the treatment of basic relationships such as that of finance to commercial policy, to statistics, to international competition, and to law. Space does not permit of an account of this long list of articles. Outstanding among the contributions are "The political aspect of financial problems," by Gaston Jèze, "Forms of modern financial theory," by Erwin Von Beckerath, "The limits of taxation," by Wolfgang Heller, "Problems of legislation and administration of the income tax in Japan," by Masao Kambe, and "Problems of income tax administration," by Sir Josiah Stamp.

The continental writers fail often in getting a more comprehensive and, therefore, more accurate picture by ignoring the history of the New World. This is particularly evident in an article by Walther Lotz on "Public finance in times of revolution." The history of France and of present day Russia is treated with keen insight but the experiences of the American Colonies are blissfully ignored.

WALTER E. ROLOFF

Proceedings of the Interstate Classified Tax Conference. (Columbus: Ohio Chamber of Commerce. 1930. Pp. x, 157.)

The thirty-seventh annual meeting of the Ohio Chamber of Commerce was devoted to a series of addresses on the classification of property for taxation—a problem now pending before the people of the state. This volume is a report of the papers presented and the discussion which followed. In general the conference was fortunate in the selection of its speakers in that it secured the men who, by training and experiences, are adequately prepared to describe the results of classification, namely, Commissioners Mark Graves of New York, Oscar Leser of Maryland, H. F. Long of Massachusetts, C. H. Morrisett of Virginia, Honorable Franklin S. Edmonds of Pennsylvania and Professor S. E. Leland of Chicago.

J. W. M.

Report of the Tax Revision Commission of the State of Utah, 1929. (Salt Lake City: Arrow Press. 1929.)

The Utah commission goes a long way toward the initiation of a practical adaptation of the model scheme of state and local taxation. The most important changes from the original plan promulgated by Dr. Bullock's committee in 1919 are as follows. (1) Owing to the great difficulty of ascertaining net income of insurance companies, it is recommended that they shall be taxed on the basis of net premiums. (2) Because of the well-nigh insurmountable obstacles to assessment of certain mining properties, the commission proposes that they shall be taxed on the basis of a

multiple of the value of annual product. (3) The Wisconsin plan of personal income tax exemptions is recommended. (4) Taxation of tangible property at the same rate is proposed.

The proposal to give the bipartisan tax commission of four members generous authority will be generally approved, but some question may be raised as to the wisdom of making the tax commission and the assignment of responsibilities to it constitutional. There is a recommendation that the "Indiana plan" of control of local expenditures and debts, with enlarged scope, shall be provided. Another proposal is that the legislature provide for a comprehensive study of governmental machinery with a view to decreasing or making more effective the expenditures of the state and its subdivisions. The report closes the enumeration of its recommendations by suggesting that a special session of the legislature be called for the purpose of submitting certain proposed constitutional amendments, approval of which is necessary before it will be legally possible to initiate the proposed tax measures.

In general it should be said that the report sets a high standard of excellence—especially so in view of the fact that all the work had to be done in a period of about eight months. The general plan of the report is, after the introduction, to enumerate the "findings of fact," and to follow that with recommendations. There is appended a statistical analysis of the operation of the general property tax.

JAMES W. MARTIN

The shifting and effects of the federal corporation income tax. Vol. II. (New York: National Industrial Conference Board. 1930. Pp. xv, 174. \$3.)

Subject index of United States Tariff Commission publications revised March, 1930. (Washington: Supt. Docs. 1930. Pp. 38. 10c.)

Population and Migration

Bevölkerungslehre. By PAUL MOMBERT. *Grundrisse zum Studium der Nationalökonomie*, Band 15. (Jena: Gustav Fischer. 1929. Pp. iv, 490. M.18.)

Once in a decade, possibly, comes a book in a particular field of scholarship about which the conscientious reviewer can wax honestly enthusiastic. Here, if ever, is such a book. We particularly recommend its thoughtful perusal by those American students of population whose foreground of vision is filled with specters of biological degeneration or—if there be any such—who are so absorbed in the technical intricacies of vital statistics that they are in a way to get lost among the trees without having ever seen the forest. We have some magnificent technical work on population in this country. We have also the habit of writing superficial synthetic textbooks. But in scholarly and constructive synthesis and attempt to see through and around a great and complex problem like that of population in all its main aspects and ramifications, we are deficient, and that at a point at which the Germans, possibly because

of their greater industry, possibly because of their more philosophical habits of thought, excel.

Outside of Germany in other words, economists have very nearly abrogated the field to any chance alien who might come along and discover its really virgin fertility for the scientific and inductive cultivator. Since the mighty debates in Germany over the Agrar versus the Industriestaat, in the 1890's and earlier, population in relation to the economics of resources and technique has been one of the central interests of economists in that country. But how many economic theorists in the United States at the present time can be found who have more than an incidental interest in the population problem? If it regains its proper prominence in economic literature it will probably be, as has been the case in England, through the difficulties we are likely to encounter, not momentarily but persistently and with increasing gravity, in technological unemployment and over-expansion of our producing apparatus. American economists should therefore welcome with gratitude the work of a mature and outstanding German scholar who is at once a general economist and a specialist well-recognized for his previous contributions to population literature. We should especially welcome a book which, like the present one, not only presents in a well-integrated and systematic manner the leading constituent economic and political aspects of the problem as it is today (as well as twenty or a hundred years ago), but also delves deeply into some of the most difficult and essential problems of dynamic economics, and shows their inescapable bearing on the population problem.

These remarks do not mean that Mombert has written a book against which no valid adverse criticism can be directed. At least, some questions may be raised. It is questionable, for instance, whether in a book designed as a general "introduction" and even of the generous size of this one should devote seventy pages or more to the history of doctrine. Doubtless doctrine has had an influence on population policies, and a complete understanding of the history of movements and policies can therefore hardly be well rounded out without consideration of theory. But an adequate history of population theory cannot be developed in so short a space, while to give more would be wholly impracticable. Brief histories of population theory are no more likely to be satisfactory than histories of economic theory in general. Mombert does as good a job as anyone, perhaps, but he does not succeed in relating in any convincing manner the theories of individual writers with the economic and political conditions of their time, except in the case of Malthus, where the general facts, to which Mombert adds little, are well known.

The next question, also one of balance, may be raised with regard to the 100-page chapter on the history of German population. To be

sure, Mombert uses German economic history as a vehicle to attempt to establish an intimate relation between population movements and general economic conditions, and is in the main fairly successful, but many readers will probably prefer to skip this part of the book. The same attempt is made for Greece and Rome in chapters so brief that they are but sketches. It is successful for Greece, but more doubtful, as Mombert himself states, for Rome, although Roman economic history should now be a fruitful and suggestive field for the population historian.

Mombert's initial approach to his task in this book is historical, rather than statistical, as in his *Studien zur Bevölkerungsbewegung* (1907). The object of his historical survey is to establish correlation between economic changes and population changes, between which, he holds, there is a reciprocal influence. It is perhaps a nice question, which those who believe that useful economic theory must be genetic, evolutionary, historical, or "institutional" (whatever that means) should be prepared to answer, how far back economic institutions must be traced in order to throw revealing light on present-day institutions and problems. It is quite possible that a certain amount of economic history may turn out to be mere antiquarianism, and that unless history in some sense repeats itself, there is a fairly close-in limit back of which we need not go in search of light on the present situation. Not denying that one may have an intense interest in mediaeval population movements and their causes, it would seem that the modern population problem is one so preëminently of capitalism and industrialism, of technological and territorial expansion, that we need to know the history of capitalism, but are not in duty bound to tarry long over the exact influence of slavery on human fertility or the part played by the monasteries in the reclamation of the German forests.

The real meat of Mombert's contribution, however, is in the second half of the book—the "systematisch-theoretischer" part. It is here that the economic elements of the problem as they are today, especially in Europe, rather than as they seemed to be in 1798 or 1802, are systematically and critically discussed. This discussion is illuminating not only because it affords a view of the up-to-the-minute economic constituents of the problem, but because also it is the work of a man thoroughly conversant with the literature of realistic economic theory and that *Weltwirtschaft*, or world economics, which is sure to play an increasingly important rôle in population literature.

Fundamental to the economics of population are the static law of factoral population and the dynamics of technical progress on the one hand, and the supply of raw materials (including land) and instrumental capital on the other. If this were all, there would be nothing particularly new in Mombert's analysis. But these fundamentals involve some difficult theoretical problems, and confusion in the theory of fac-

factoral proportion, kept distinctly separated as it must be from other influences on cost and returns, such as degree of plant utilization, size of plant, and time-changes in supply of factors and in the state of the arts, is easy.

It is unfortunate that there is no English equivalent for the German term *Nahrungsspielraum*. It has somewhat loose usage even in German, but may properly be regarded as the number of people a given country or area can support at a given standard of living. This is primarily a function of the country's productive capacity, which in turn is one of factoral proportion. Productive power and standard of living lead us directly to the concept of an optimum population. Mombert introduces this concept at the outset of his analysis of the economics of population. After a brief discussion he appears to dismiss it as a purely ideal concept, of little use in practical affairs. As a matter of fact, however, the concept is implicit in most of the remaining part of the book, a fact worthy of remark. This book is the first extensive work in economic analysis in which the optimum concept plays so important, if partly anonymous, a rôle.

Naturally enough, Mombert sees the production problem from the standpoint of European competitive power in the world market. He makes a sharp distinction between the population a country could support directly from its own agricultural and industrial resources and the population it can support with the aid of international trade—under the terms *innenbedingte* and *ausenbedingte Nahrungsspielraum*. The problem of population capacity is thus one thing when a given country, another thing when the whole earth, is considered. It is easy to see how the discussion now turns on the old problem of the agricultural, self-supporting, state versus the industrial state dependent on other countries for raw materials and for market for finished commodities. A very illuminating presentation follows, and in the end, Mombert, in spite of himself, leaves Germany, the British Isles, and Europe as a whole, between the devil and the deep sea. The weight of evidence is heavily against the possibility of economic self-sufficiency, while on the other hand the economic, as well as the political, position of the highly industrialized country is likely to become extremely unfavorable. For with the progressive industrialization of new countries, a movement hastened by the World War, Europe will find it ever harder to sell manufactured goods abroad, and will have to pay increasingly high prices for essential raw materials. Mombert even fears that the raw materials countries will set up a conscious monopoly-price policy. There are mitigations—in technical progress which will substitute domestic raw materials for those now imported, in more productive agriculture (it is diverting to see German landlords taken to task for their ignorance of scientific agriculture), and in the rationalization of industry.

Whereupon we are introduced to the knottiest problem of all, and one the full bearing of which on the future of optimum population has not been by any means adequately analyzed. While rationalization may temporarily improve a country's position, the question remains whether it will not produce chronic technological unemployment, which is the same as redundant population. Mombert faces this question, apparently hopefully, but not over-confidently. Students familiar with the Foster and Catchings chapter in economic theory and with the theory of over-saving know that we have in rationalization and technological unemployment a problem more of distribution than of production. Mombert here does not go as deep as is necessary.

On the other hand he sees more broadly than do most orthodox economists in this country. Contrary to our practice, Continental economists treat socialist economic theory seriously, even when they find it untenable. Technological unemployment is a new name for what Marx called the industrial reserve army. And so we find Mombert devoting considerable space to the socialistic literature of capitalistic imperialism and the inevitable collapse of the capitalistic system from the sheer inner stresses of industrialization, rationalization, and deficiency in mass purchasing power. Mombert really finds no answer to the socialists. All he can do is to point out that the socialistic state will face the same problem of foreign markets that the capitalistic state now faces.

In conclusion we may note that if economically we are going through a period of industrial rationalization and a revolution of production technique, under the stimulus of scientific research and invention, on the other hand, since the war, an unprecedented social revolution has been in process in the rationalization of pro-creation and the phenomenal decline in human fertility. Mombert, in other chapters, gives due consideration to this and other demographic matters. Perhaps there is room for optimism, even for belief that the problem of numbers is solving itself, in the fact that one "rationalization" is likely to be balanced by the other. The working masses of industrial Europe have already reduced their birth rate to a point which two decades ago would have been considered low even for the upper classes. Differential birth rates are disappearing, and unless the general birth rate rises population will decline. That may afford some slight alleviation of the traffic problem.

A. B. WOLFE

Ohio State University

NEW BOOKS

DUNCAN, H. C. *Race and population problems*. (New York: Longmans Green. 1929. Pp. xv, 424.)

This is a typical sociological textbook, well up to the standard set by American publishers. It covers a large field at a run. In fact it covers two fields, which may be contiguous—as pretty much everything touching

man is
as aspe
matter:
"Book
the wh
and su
(ch. 7)
Lamar
ton, W
inherit
the in
tive s
140 p
The
cultur
theory
in 18
not g
cative
and I
ing t
chap
page
famo
popu
other
Malt
Sper
one
whor
and
T
meth
men
of p
spac

FEREN
ein
FLORI
GAMIC
mig
280
MELV
Yo
Pp
NEW
Lo
SHAN
(N

man is—but which do not for scientific purposes have to be considered as aspects of one and the same problem. It is difficult to see why two matters so little connected as "race" and "population" should be put, as "Book I" and "Book II" in the same covers. Attempt is made to survey the whole field of race, from "the origin of man" (ch. 1) to "inferiority and superiority" (ch. 5) and the "dysgenetic effects of war and religion" (ch. 7), taking in by the way (ch. 4) Linnæus, Buffon, Erasmus Darwin, Lamarck, Charles Darwin (Leonard is omitted!), Spencer, Mendel, Galton, Weismann, and DeVries; and to cover "the eugenic movement, the inheritance of physical characters, the inheritance of mental characters, the inheritance of mental abilities, the inheritance of mental defects, positive and negative eugenics," and "heredity and environment,"—all in 140 pages.

Then as a sort of *entr'acte* we have 56 pages on the diffusion of culture, before we attempt to cover the whole subject of population theory (and its history), population movement, and population policy, in 185 pages. Naturally, the chapter on pre-Malthusian theories does not go back of Stangeland (an excellent compendium but of doubtful educative value if one does not read at least some of the original sources) and Patten's *Development of English Thought*, which it would be surprising to see cited as authority, did not Stangeland introduce one of his chapters by a long quotation from it. The Romans are dismissed in two pages, with, of course, quotation of the witticism, both famous and infamous, of Metellus, which has been repeated by every writer on Roman population since Montesquieu and Malthus. Religious influences get another two pages, and mercantilists three, and so on. A chapter on post-Malthusian writers gives us William Thompson, John Rae, Doubleday, Spencer, the grievously overrated Arsène Dumont, Nitti (whose book is one of the worst ever written), Patten, C. E. Pell, and Pearl—none of whom should be introduced unless the student has access to their works and is required to read them critically.

The chapters on control of population by positive and by preventive methods draw heavily on Carr-Saunders, but not critically. The treatment of the population of the earth, of the birth-control movement, and of population and the food supply is well done, considering the limited space.

A. B. WOLFE

FERENCZI, I. *Kontinentale Wanderungen und die Annäherung der Völker: ein geschichtlicher Überblick.* (Jena: Fischer. 1930. Pp. 50.)

FLORENCE, L. S. *Birth control on trial.* (London: Allen & Unwin. 5s.)

GAMIO, M. *Mexican immigration to the United States: a study of human migration and adjustment.* (Chicago: Univ. of Chicago Press. 1930. Pp. 280. \$3.)

MELVIN, B. L. *Rural population, Tompkins and Schuyler Counties, New York, 1925.* Bull. 487. (Ithaca: N.Y. Agric. Exper. Station. 1929. Pp. 58.)

NEWMARK, M. H. and NEWMARK, M. R. *Census of the city and county of Los Angeles, California, for the year 1850, together with an analysis and an appendix.* (Los Angeles: Times-Mirror Press. 1929. Pp. 139.)

SHANNON, A. H. *The negro in Washington: a study in race amalgamation.* (New York: Walter Neale. 1930. Pp. 332. \$3.)

WILKINSON, H. L. *The world's population problems and a white Australia* (London: P. S. King. 1930. Pp. xvii, 339. 18s.)

WILLCOX, W. F., editor. *International migrations. Vol. I. Statistics.* Compiled on behalf of the International Labour Office, with introduction and notes by Imre Ferenczi. (New York: National Bureau of Economic Research. 1929. Pp. 1112. \$10.)

The genesis of this voluminous and ambitious compilation is indicated in the preface: "The present volume has grown out of the appointment in 1924 by the Social Science Research Council of a committee on the scientific aspects of human migration, a subject of great and growing interest in the United States upon which further studies supported by an adequate subvention were thought to be needed. Previous American work in this field has been done through official channels which have necessarily influenced its character and conclusions, or through private associations, often of a propagandist tendency, or by single scholars whose time and resources were narrowly limited." The necessary financial backing for so complicated and laborious a project was secured in this country and the work of collecting and arranging the available statistical data was committed to Dr. Ferenczi who, as acting chief of the Migration Section of the International Labor Bureau, had prepared the report on *Migration Movements, 1920-23*. Professor Willcox, who alone signs the preface, generously states that Dr. Ferenczi is to be regarded as the author of the book, particularly of the long introduction and notes. Even a casual glance at the notes and tables is sufficient to substantiate Professor Willcox's statement that "much material hitherto unknown has been disinterred," some of it from most unexpected sources, as Dr. Ferenczi notes, and that "much energy, persistence, and organizing ability have gone into its preparation within a period of ten months." At that, some important material of historical value had to be omitted because it was secured too late for publication. Why haste in getting out this particular volume was deemed necessary is not stated.

Part II, comprising 850 pages, gives the detailed "national" and "international" tables, mainly from official sources. The national tables give the known data for every country the earth over for which information could be secured. Some South American and African countries are not represented. The international tables arrange summaries of national statistics for comparative purposes.

Part I, on proletarian mass migration, nineteenth and twentieth centuries, is a textual analysis of the national statistics. The introduction gives a brief survey of the nature of the sources and of the methods of collecting and compiling the statistics. In his historical survey of mass migration Dr. Ferenczi states that "the total number of international emigrants to all countries since the beginning of the nineteenth century cannot be precisely determined, since the statistics do not as a rule begin until the migration movement has assumed significant proportions." It is interesting, and a little surprising, to learn that "the statistics of European intercontinental emigration and the immigration statistics of overseas countries show about the same totals." For the years 1820-1924, Dr. Ferenczi states, "the latter figure is about 55 1/2 millions, while the total recorded emigration from Europe for 1846-1924 amounts to 50 millions." The basic summarizing table giving a historical view of emigra-

tion of
unfortu
faced,
type g
ages.
will be

The
on spe
almost
jectivi
study
plete
such
not th
There
No do
sidera

The alie
\$8.)

Contrib
Univ
Pensi

Co
sumo
navig
ziona
nei c
dei s
inter
effici
in p

Facts
Ind
Offic

Morta

Sup

New

tion

Pp.

Summ

reg

Virgi

He

Re

1.

tion of citizens from the leading emigration countries (pp. 230, 231) is unfortunately complicated by the use of three types of figures, plain, black faced, and italics, with no explanation of what they mean. The ordinary type gives the quinquennial totals, the black faced type the annual averages. In general, the data are so complicated that the use of the book will be laborious. Probably this could not be avoided.

The book will doubtless be a reference work and a mine of information on specific countries for interested experts for a long time to come. An almost impossible project has been accomplished with expertness and objectivity. It is put forth as a scientific, or at least the basis of a scientific study of world migration movements. While raw statistics, however complete and comprehensive, are an indispensable basis to scientific study of such population movements, they are only a part, and after all perhaps not the most essential part, of the composite foundation of such a study. There are economic, psychological, and political bases of equal importance. No doubt the second volume, which is to follow, will give these due consideration.

A. B. WOLFE

The alien in our midst. (New York: Galton Pub. Co., 11 W. 42nd St. 1930. \$3.)

Contributi del laboratorio di statistica. Serie prima. Pubblicazioni della Università Cattolica del Saco Cuore, vol. iii. (Milan: Soc. Ed. "Vita e Pensiero." Pp. vii, 436.)

Contains the following studies: "Effetti demografici ed eugenici del consumo del vino," by Marcello Boldrini; "Il traffico dei viaggiatori nella navigazione sul Lago Maggiore," by Pia Sterna; "La teoria della popolazione di Giammaria Ortes," by Albino Uggè; "Sulla proporzione dei sessi nei concepimenti e nelle nascite," by Marcello Boldrini; "Sulla proporzione dei sessi nei parti abortivi e distocici," by Pietro Rota Sperti; "Confronti internazionali fra la mortalità per singole cause secondo il metodo dei coefficienti tipo," by Albino Uggè; "Sulla diffusione della paralisi progressiva in paesi malarici," by Amintore Fanfani.

Facts about Filipino immigration into California. State of Calif., Dept. of Industrial Relations, spec. bull. no. 3. (San Francisco: State Printing Office. 1930. Pp. 76.)

Mortality statistics: 1927. Part II. *Text and text tables.* (Washington: Supt. Docs. 1930. Pp. 160. 25c.)

New Zealand: population census, 1926. Vol. IX. *Industrial and occupational distribution.* (Wellington: Census and Statistics Office. 1930. Pp. 97. 3s.)

Summary of provisional birth, death, and infant mortality figures in the birth registration area: 1929. (Washington: Supt. Docs. Pp. 21.)

Virginia: report of the Bureau of Vital Statistics, State Department of Health, for the year ended December 31, 1928. Reprinted from Annual Report State Dept. of Health, 1929. Virginia Health Bull., vol. xxii, no. 1. (Richmond: State House. 1930. Pp. 64.)

Social Problems and Reforms

NEW BOOKS

BECK, J. M. *The revolt against prohibition*. Address delivered in the House of Representatives. (New York: Assoc. against the Prohibition Amendment. 1930. Pp. 32.)

DICKINSON, C. H. *Social aims of Jesus*. (New York: Richard R. Smith. 1930. Pp. 310. \$2.50.)

FIELD, R. S. *New uses for capital: the problem of investing for genuine prosperity*. (Philadelphia: Author, 5322 Gainor Road. 1930. Pp. 136. \$1.50.)

FISHER, I. and BROUGHMAN, H. B. *The "noble experiment."* (New York: Alcohol Information Committee, 150 Fifth Ave. 1930. Pp. 536. \$2.)

An assembling of arguments on both sides of the prohibition controversy.
HAWTREY, R. G. *Economic aspects of sovereignty*. (New York: Longmans Green. 1930. Pp. v, 162. \$2.75.)

HOBHOUSE, L. T., WHEELER, G. C. and GINSBERG, M. *The material culture and social institutions of the simpler peoples: an essay in correlation*. New ed. (London: Chapman & Hall. 1930. Pp. 306. 10s. 6d.)

Original work appeared in 1915 and has long been out of print.

HOLLINGWORTH, H. L. *Vocational psychology and character analysis*. (New York: Appleton. 1929. Pp. xii, 409. \$3.)

The present volume is considerably more than a combination of the author's previous volumes, *Vocational Psychology* (1916) and *Judging Human Character* (1922); there is a quantity of new material, and an effective integration of the topics included. The book is more or less divisible into three parts, the first dealing with methods antecedent to scientific psychology, the second dealing with traditional methods of selection which are still widely used, and the third dealing with the measurement of aptitudes.

In the first part the errors of phrenology are pointed out; and experiments are cited (Paterson and Ludgate, Cleeton and Knight, Hull) to show that the contentions of physiognomy are sadly lacking in validity.

In the second part experimental evidence is presented to indicate that generally the letter of application, photograph, self-analysis, letter of recommendation, and even personal interview fail signally as devices for effective selection. To increase the reliability and validity of judging letters of application, judgment can be restricted to the executives experimentally shown to be most competent, and letters restricted to items experimentally shown to be most relevant. Similarly, techniques can be tested for judging photographs or improving interviews.

In the third part of the volume the construction and use of different kinds of aptitude tests are explained; significant suggestions are made concerning tests of character and temperament, the measurement of interests, and the prognostic value of school achievement; and different methods of special vocational tests are explained and criticized. A chapter on the vocational aptitudes of women, written by the author's wife (also a psychologist of note) is included in the volume. This chapter dispels the notion of conspicuous sex differences in intelligence and in instinctive traits, and gives experimental evidence contrary to the common belief in the incapacitating effects of periodicity. C. L. STONE

MCCLENAHAN, B. A. *The changing urban neighborhood, from neighbor to highdweller: a sociological study.* Soc. science ser., no. 1. (Los Angeles: Univ. of Southern California. 1929. Pp. xi, 140.)

MANN, T. B. *Rural municipalities: a sociological study of local government in the United States.* (New York and London: Century. 1930. Pp. xvii, 343. \$2.)

MAROI, L. *Un ventennio di attività edilizia a Roma, 1909-1929.* (Rome: Tip. Ditta L. Cecchini. 1929. Pp. 66.)

Lafranco Maroi, chief of the Statistic Division of the Governatorato of Rome, outlines in this pamphlet the recent statistics dealing with the building activity of the capital of Italy in a period full of great economic changes. The author points out that the housing supply has followed (excluding the war period) slowly but constantly the increasing demand of the growing population, and that the conditions of overcrowding in Rome were gradually remedied. It is interesting to note also that the long-standing defect of distribution, as shown by the high percentage of apartments of 4-6 rooms, was diminished after war by the increasing supply of small apartments of 2-3 rooms offered to the workers. However, the many facilities given by the city administration, prior to 1923, did not completely remedy overcrowding for the following reasons: (a) the demand was too strong to be satisfied in a short while, (b) coöperatives and the other bodies favored by government policies tended to distribute the new apartments irrationally, (c) the existence of the laws which prevented the proprietor from raising the rent, (d) the reluctance of private capital to enter the field of real estate in a time of financial instability.

After 1923, the Fascist government succeeded in gradually eliminating all the above said reasons so that the building activity was unusually hastened—in the last seven years the total capital invested in housing constructions in Rome has increased by the amount of 3 billions of lire (\$157,000,000). The analysis of statistics in the years 1927 and 1928 shows an interruption in the rising curve of the building activity. This phenomenon, entirely temporary, was the consequence of the (1) unavoidable economic difficulties produced by the revaluation of the Italian currency and by the consequent stabilization (2) temporary suspension of the freedom in the fixation of rents. The law of June 3, 1928, reestablished the gradual return to the freedom and entirely normalized the market.

The study is interesting not only from the local point of view, but also as an example of the interference of government legislation in a matter so strictly connected with social and economic phenomena as the housing problem. The pamphlet is poorly printed and lacks a systematic index.

FAUSTO R. PITIGLIANI

MUND, V. *Prosperity reserves of public works.* Annals, vol. 149, part 2. (Philadelphia: American Academy of Pol. and Soc. Science. 1930. Pp. 52. \$2.)

NELSON, L. E. *Federal liquor laws: a compilation of all federal laws of consequence in the enforcement of liquor laws of the United States, with*

an exhaustive digest of all federal decisions on the subject arranged for convenient reference. (Chicago: Callaghan. 1930. Pp. li, 1089.)

PORTUS, G. V. *The American background: sketched for Australians.* (Melbourne: Macmillan. 1929. Pp. x, 126. \$2.)

Mr. Portus is lecturer in economic history in Sydney University; and in this little book he explains to his fellow-countrymen the racial, political, and economic background of North American life as he saw it during a six months' sojourn here in 1927. The economic background fills two-thirds of the book, divided under the headings of production, distribution, and labor. On all topics Mr. Portus is refreshingly free from that air of superiority which permeates many European commentators. He does not assume that American things which are different from European or Australian things are inferior; they are just different, but if a grade mark has to be given them, they are often superior as well. Like all visitors, Mr. Portus is interested in the phenomena of the "second Industrial Revolution"—based on the automobile and electricity, as the first one was based on steam and the railroad. But he is sceptical concerning some of their virtues, and suspects that in the victory of the advertiser over the economist and in the costs of creating buyers we waste on the bill-boards what we save on the assembly line.

Coming from Australia, he is especially anxious to discover how labor fares in America; he is consequently worried over the frequent sacrifice of producer to product, the lack of any organized attack on unemployment, the gap between the wages of unskilled and skilled workers, the old-fashioned outlook of the A. F. of L., and the injunction. He suggests that the stoppage of unrestricted immigration will produce a more homogeneous wage-earning population, which will permit the growth of a wider working-class-consciousness. From this he ventures the prediction that unless a much better industrial relationship between master and man is fostered, the United States will live through the political and economic class struggles that have characterized both Australia and the Old World. He finds encouragement in the signs of that better relationship scattered throughout the country, but is too optimistic about labor's entry into the banking field.

When at last he points the moral to Australians, he weighs the relative worth of the two countries as follows: "I do not want Australia to have to face a color problem. I do not want Australian labor to be hamstrung by a babel of tongues and a diversity of standards of living. Above all, I do not want to see in Australia that cynical attitude to politics which emasculates idealism and invites corruption." But he would like Australia to seek for a wider distribution of ownership of stock, to be more ready to experiment with new forms of industrial organization, and to turn much of the labor enthusiasm that goes into fighting employers or elections into questions of finance and banking.

Throughout the book Mr. Portus handles his theme with frankness and with a delightful style shot through with a rich sense of humor. Some of his thumb-nail sketches, such as that of Mr. Ultimate Consumer, the modern St. Sebastian, the universal target of industry, or that of the advertiser wafting us into a fairyland through the advertising magazine, are as funny and forcible as anything yet written. It is good to

see ou
antip

SPARR,
with
1930.
TAYLOR
Pres
WILLIA
vol.
Soci
WILLIA
comm
Rese
The et
Will
vers
Finlan
the
The g
(No
Housi
Neigh
nei
by
bui
Re
Rura
Li
Ch
Wirt
Oc
44

Clo
m
&
Du
F

i
f
t
C

see ourselves when a friendly critic, devoid of all sense of superiority or antipathy, holds up the mirror.

H. HEATON

SPAHR, W. E. and SWENSON, R. J. *Methods and status of scientific research, with particular application to the social sciences.* (New York: Harper. 1930. Pp. xxi, 533. \$4.)

TAYLOR, G. *Pioneering on social frontiers.* (Chicago: Univ. of Chicago Press. 1930. Pp. 469. \$4.)

WILLIAMS, F. E., editor. *Some social aspects of mental hygiene.* Annals, vol. 149, part 3. (Philadelphia: American Academy of Political and Social Science. 1930. Pp. iv, 214. \$2.)

WILLIAMS, P. and CROXTON, F. E. *Corporation contributions to organized community welfare services.* (New York: National Bureau of Economic Research. 1930. Pp. 347. \$3.)

The ethical problems of modern finance. Lectures delivered in 1929 on the William A. Vawter Foundation on Business Ethics, Northwestern University School of Commerce. (New York: Ronald. 1930. Pp. iii, 141.)

Finland's prohibition: an echo of Volsteadism. (Washington: Assoc. against the Prohibition Amendment. 1930. Pp. 36.)

The graphic regional plan. Atlas and description. Regional plan vol. 1. (New York: Regional Plan of N.Y. and Its Environs. 1929. Pp. 416.)

Housing law of Michigan. (Lansing: State House. 1929. Pp. 36.)

Neighborhood and community planning. Regional survey, vol. VII. *The neighboring unit*, by C. A. PERRY. *Sunlight and daylight for urban areas*, by W. D. HEYDECKER and E. P. GOODRICH. *Problems of planning un-built areas*, by T. ADAMS, E. M. BASSETT, and R. WHITTEN. (New York: Regional Plan of N.Y. and Its Environs. 1929. Pp. 363.)

Rural organization, 1929. Proceedings of the Twelfth American Country Life Conference, Ames, Iowa, October 17-20, 1929. (Chicago: Univ. of Chicago Press for the American Country Life Assoc. 1930. Pp. ix, 186.)

Wirtschaft und Recht. Mitteilungen des Instituts für Volkswirtschaft zu Odessa. Band II. (Odessa: Institut für Volkswirtschaft. 1929. Pp. 448.)

Insurance and Pensions

NEW BOOKS

CLOUD, A. D. *Pensions in modern industry. The legal, actuarial and economic principles of the problem of the aged employee.* (Chicago: Hawkins & Loomis. 1930. Pp. xxv, 531. \$10.)

DUBLIN, L. I. and LOTKA, A. J. *The money value of a man.* (New York: Ronald. 1930. Pp. xv, 264. \$5.)

This work is the outgrowth of an interest in the question of how much insurance a family man should carry in order to provide suitably for his family in case of death or permanent disability. The authors have viewed their problem broadly and hence have calculated the cost of rearing children on different standards of living, the losses due to sickness and the consequent money value of public health work, the money value of a man according to age and earnings, and related matters. All this gives a basis for a rational estimate of the equitable compensations for injuries and death and the social burden of the handicapped.

Adopting as a starting point the method of Dr. Farr, they have computed the present worth of a man's prospective earnings, account being taken of his age, the probable course of his earnings, probable length of life and extent of unemployment. Even the chances of a widow remarrying are brought under consideration. There are 83 pages of tables showing present worth at ages 0 to 70 for different income classes, at different mortality rates and at different rates of discount. These tables and the preliminary discussion represent a very meritorious effort toward the standardization of a complex field of human values where, as the authors' summaries on pages 81-85 show, there still prevails a lamentably wide range for administrative whim, judicial and personal ignorance, with consequent injury to both individual and public welfare.

F. H. HANKINS

DUNN, R. A. *Aviation and life insurance: a study of the death rate and the hazard of flying in relation to policy underwriting.* (New York: Daniel Guggenheim Fund for the Promotion of Aeronautics. 1930. Pp. 112.)

HARBAUGH, C. H., 2nd, editor. *The industrial claim adjuster.* (Chicago and New York: Spectator Co. 1930. Pp. ix, 157.)

JONES, F. R., compiler. *Digest of workmen's compensation laws in the United States and territories, with annotations.* 11th ed., rev. (New York: Assoc. of Casualty & Surety Executives, 1 Park Ave. 1929. Pp. 560. \$8.)

PENMAN, W. *The advantages of insurance.* (New York: Macmillan. 1930. Pp. 127.)

PIKE, M. *America insures itself: a popular treatment of life insurance practices and problems.* (Chicago and New York: Spectator. 1930. Pp. xiii, 206.)

PRITCHETT, H. S. *The social philosophy of pensions, with a review of existing pension systems for professional groups.* Bull. no. 25. (New York: Carnegie Foundation for Advancement of Teaching. 1930. Pp. 89.)

SKINNER, W. A. *The workmen's compensation law of Pennsylvania.* 2nd ed. (Philadelphia: George T. Bisel Co. 1930. Pp. xxi, 824.)

Abstract of the proceedings of the fortieth annual meeting of the Association of Life Insurance Medical Directors of America. Vol. XVI. (New York: L. B. Recording & Statistical Corp. 1930. Pp. viii, 446.)

Developments and problems in farmers' mutual fire insurance. Reprint Agric. circ. 54. (Washington: Supt. Docs. 1930. Pp. 31. 5c.)

Pensions for industrial and business employees. Vols. I-III. *Preliminary reports, May 1928, February, April, 1929.* (New York: Industrial Relations Counselors. 1928-1929. Loose leaf.) Vol. I, by Bryce M. Stewart. Vol. II, by Murray W. Latimer. Vol. III, by Bryce M. Stewart and Murray W. Latimer.

Public old age pensions. (New York: National Association of Manufacturers, 11 W. 42nd St. 1930. Pp. 87.)

Public unemployment insurance. A factual analysis prepared by a joint committee of the National Association of Manufacturers and National Industrial Council. (New York: National Association of Manufacturers. 1930. Pp. 89.)

Socialism and Co-operative Enterprises

NEW BOOKS

BIRD, F. L. and RYAN, F. M. *Public ownership on trials: a study of municipal light and power in California.* (New York: New Republic Inc. 1930. Pp. xviii, 186.)

BROOKINGS, R. S. *Economic democracy, America's answer to socialism and communism.* (New York: Macmillan. 1929. Pp. xxviii, 151. \$1.50.)

This collection of addresses and papers is a companion volume to Mr. Brookings' *Industrial Ownership*, and presents in interesting fashion some important conclusions concerning our economic order based on the author's long experience as a leader in the business world.

He is very conscious of the risks of business and the other evils connected with blind competition, and finds the remedy in the development of large business corporations and combinations in every field, agriculture included, with slight if any monopoly power, because of governmental supervision and the check of competition from efficient medium-sized concerns. In this development he discerns efficiency, security, stability, diffusion of ownership, fair returns to capital and management, high wages, and a modicum of economic democracy. This is the national system created by business men in the past half century, with machinery, mass production, and a home market protected against cheap labor and the products of cheap labor, and is "America's answer to socialism and communism."

Apart from the author's insistence on the need for a protective tariff as the guardian angel of this development, the determination of many business leaders to improve the economic order along these lines must command widespread approval.

J. E. LEROSSIGNOL

GIDE, C. *Communist and coöperative colonies.* Translated by ERNEST F. ROW. (New York: Crowell. 1930. Pp. 223. \$2.50.)

LASKI, H. J. *The socialist tradition in the French Revolution.* (London: Allen & Unwin. 1930. 1s.)

MALOTT, E. O. *Forces affecting municipally owned electric plants in Wisconsin.* (Chicago: Institute for Research in Land Economics and Public Utilities. 1930. Pp. vii, 101. \$1.50.)

PLEKHANOV, G. *Fundamental problems of Marxism.* (New York: International Pubs. 1930. Pp. xiv, 145. \$2.)

RYAZANOFF, D. *The Communist Manifesto of Karl Marx and Friedrich Engels.* (New York: International Pubs. 1930. Pp. xi, 365. \$3.75.)

SELIGMAN, E. R. A., BROCKWAY, F. and NEARING, S. *Capitalism, socialism, communism? A debate.* (New York: Rand Book Store, 7 E. 15th St. 1930. Pp. 64. 50c.)

SHAW, G. B. *Socialism: principles and outlook.* Reprinted from the *Encyclopædia Britannica*, 14th ed., 1929. *Fabianism.* Reprinted from *Chambers's Encyclopedia*. Fabian tract no. 233. (London: Fabian Society. 1930. Pp. 20. 3d.)

VORLÄNDER, K. *Karl Marx: sein Leben und sein Werk.* (Leipzig: F. Meiner. 1929. Pp. viii, 332.)

WOOD, C. G. *Reds and lost wages.* (New York and London: Harper. 1930. Pp. xv, 280. \$4.)

Statistics and Its Methods

The National Income and Its Purchasing Power. By WILLFORD I. KING.
(New York: National Bureau of Economic Research. 1930. Pp. 394.)

This book brings up to date the useful work of Dr. King and the National Bureau in their estimate of the nation's realized income, presents the material in more detailed form, and offers certain new features. These estimates of income are too well known and too widely used to warrant discussion here. The economic community is greatly indebted to Dr. King and his assistants for the tremendous labor which is involved in their preparation.

The present volume has gone far beyond the earlier studies in examining the constituent parts of this income. The chapters on "The industrial classification of the population," "The industrial origin of realized income," "The share of property and enterprise," "The share of the employees," and "Changes in concentration of income" present a minute statistical picture of the nation's income for each year from 1909 to 1925 or later.

The reader must not be misled by the title of the chapter on "Changes in concentration of income." The significant question in regard to concentration is whether or not a given proportion of the population has come to receive a larger proportion of the national income. The income classes discussed in this chapter are based on absolute real income and could, therefore, throw light on changes in concentration only if the *per capita* real income of the country remained constant. The very large increase in *per capita* income which is shown in Table XII would have caused a great increase in the number of individuals in the higher income classes, even though no change in concentration had occurred. The chapter, therefore, gives no measure of such a change.

For the new material, the preface states that "the really important new contribution which the book presents is the study of that part of the income of investors derived from various classes of corporations." Particularly interesting are the estimates of changes in the market value of the outstanding securities of certain industries. The magnitude of these changes, involving huge gains or losses to the owner, is clearly shown. Both the practical and physiological effects of these gains and losses in disrupting the stability of economic activity deserve extensive study.

The usefulness of the new material is, however, seriously impaired by a methodological error which makes the figures of corporate earnings unacceptable and by estimates of dividends paid by corporations which are open to serious question in certain years.

In making the estimates of corporate savings, the "statutory net income" of corporations compiled by the Treasury Department has been used as if it were the net income available either to be paid as dividends or to be saved. Unfortunately, "statutory net income" differs from the latter since it is net income before taxes have been deducted. (It also differs in certain other minor respects.) Correction for this difference would reduce Dr. King's figures for corporate savings in large degree. In 1925, they would be reduced from \$3,463 million to \$2,812 million, and in 1918, the year of maximum taxes, from \$4,128 million to under \$2,000 million. The table of corporate savings (Table LXXXVI) is, therefore, to an important extent, inaccurate.

The estimates of dividends paid by corporations for the years before 1922 are made on the basis of the dividends paid by sample groups of companies. The sample groups are dominated by very large corporations, and there is reason to believe that they are not representative of all corporations, particularly in the war years, when the large corporations were extremely prosperous. From 1916 to 1921 the estimates greatly exceed similar estimates made by the present writer, exceeding the latter by over 25 per cent in 1918. While neither set of estimates can claim to be more than approximate, the differences between them are too great to be lightly dismissed. There are various indications that an important part of the discrepancy is the result of overestimates by Dr. King. (For example, his estimates for factories in 1918 could have been correct only if three-quarters of all corporate income had been paid in dividends, an improbably high proportion for that year.) The difference in estimates combined with the unrepresentative character of his sample make his estimates for the years from 1916 to 1921 subject to grave question.

These two important examples of questionable methodology give point to a criticism which applies to the book as a whole. Unlike the earlier works on national income, the present volume contains only the most unsatisfactory general description of the sources and methods employed in handling the material. It is stated, for example, that estimates for corporate dividends of certain major industries "are based upon the dividend payments of a sample group of corporations" (page 181); but no mention is made of the way in which the sample is used. Likewise, for the estimates of corporate savings, there is no indication at all of the method or exact source.

A set of statistics can only be accurately defined in terms of the methods by which they have been obtained, including both the sources of the raw materials and the manner of their manipulation. Of course, where so large a volume of material is involved as in the present study, some compromise must be made between giving a detailed description

of all methods and sources and giving no description. But for such new and important series as the interest, dividends, and savings of corporations, a clear summary of methods seems essential, if other workers are to use the figures as a basis for further study.

It is regrettable that in a field which is seeking to become a science, such findings should be reported in an unsatisfactory form. The National Bureau sets out to "present to the public important economic facts and the interpretation thereof in a scientific . . . manner" (resolution adopted October 25, 1926). In its first study of national income, the Bureau published two volumes, one a scientific study of income, including a description of the methods and sources and the second, a more popular summary of the first. In the present instance, it has chosen to publish only a more popular summary. While the exigencies of self-preservation undoubtedly require the popular summary, the scientific report of findings appears to be essential if an accurate body of basic economic fact is to be constructed.

GARDINER C. MEANS

Columbia University

NEW BOOKS

ANDERSON, O. *Zur Problematik der empirisch-statistischen Konjunkturforschung. Kritische Betrachtung der Harvard-Methoden.* (Bonn: Kurt Schroeder. 1929. Pp. 39. M.2.85.)

The extensive use in cycle analysis of the methods developed by Professor Persons makes pertinent a close scrutiny of the assumptions implicit in those methods. To this end, Professor Anderson first surveys the general assumptions made when time series are treated by the methods suitable for analysis of the observations of the results of an experiment repeated under unchanging conditions, and points out the respects in which time series differ, in reality, from these assumptions. Then he proceeds to a critique of the specific methods of Professor Persons, as developed from 1919 to 1923.

By scrutiny of the assumptions implicit in these methods and by building up hypothetical series, the author reveals what he considers to be significant weaknesses in the leading phases of the Personian methods. The objections raised include the argument that the relation between the trend and the seasonal may be additive rather than proportional, as assumed; that when the seasonal movement is strong enough to make its elimination really significant, errors in estimating its value and that of the trend may readily yield misleading conclusions as to the residual (cycle plus irregular fluctuations); that, in fact, the logic of attempting to isolate the cycle or cycles from the trend is questionable, and, in any event, the choice of the type of trend curve is always a matter of somewhat arbitrary discretion; that the theoretical conditions validating the method of least squares as a criterion are absent, and hence there is no clear justification for its use; and that the presence of occasional strong irregular factors may distort the trend and introduce a spurious cycle.

In general, Professor Anderson urges, the effort to isolate the economic

cycle by formal mathematical procedure should be abandoned and in place thereof we should substitute methods of analysis based in each case on a careful consideration of the economic relations of the given series. He commends, for example, the device, used by Professor Persons in a later study, of eliminating trend from certain price series by dividing by a more stable price curve.

Where simpler treatment is not adequate but the influences responsible for the greater part of the observed fluctuations can be identified, he suggests setting up a multiple-factor equation of relationship, with the constituents determined by preliminary economic analysis and their numerical values by the method of least squares. This brief constructive section of the monograph is less convincing than the critical portions, which present an excellent summary of the limitations of the methods commonly employed in attempting to isolate the cyclical element in economic series.

HARRY JEROME

MACDONALD, M. E. *Practical statistics for teachers: a text and work book.* (New York: Macmillan. 1930. Pp. 185. \$1.60.)

McMILLEN, A. W. *Measurement in social works: a statistical problem in family and child welfare and allied fields.* Social service monograph, no. 12. (Chicago: Univ. of Chicago Press. 1930. Pp. xv, 154. \$3.)

MUDGETT, B. D. *Statistical tables and graphs.* (Boston: Houghton Mifflin. 1930. Pp. viii, 194.)

PHILLIPS, F. M. *Statistics of universities, colleges and professional schools, 1927-28.* Advance sheet from the *Biennial survey of education in the United States, 1926-1928.* Bull. no. 38. (Washington: Supt. Docs. 1929. Pp. 194. 30c.)

RIEMER, R. *Die rechtlichen und methodischen Grundlagen der österreichischen Betriebszählung, 1930.* Wiener statistische Sprechabende, Heft 3. (Vienna: Julius Springer. 1930. Pp. 20.)

SOUDEK, J. *Die sozialen Auswirkungen der Konjunkturschwankungen.* (Bonn: Kurt Schroeder. 1929. Pp. 76.)

This pamphlet is not to be compared with the studies of Berridge, Hexter, Jerome or Miss Thomas. A brief syllabus, presenting outlines and summaries and incidentally offering some criticism, it is not a piece of independent research. At first (pp. 14-31) a sketch is given of the work done and the methods pursued by various types of study in the field, which are divided into deductive economics, criminological statistics and mathematical statistics. Dr. Soudek does not regard highly the second type because of its easy assumption of causation where at best there is merely empirical evidence; deduction is urged as the only method adequate to discern causal connections. Then (pp. 31-51) follows a useful discussion of the views held by some statisticians and logicians with respect to plural causation, probability and correlation. Dr. Soudek expresses the opinion that the union of the deductive and the statistical approaches will be most fruitful in the disclosure of causal relations in social phenomena through the course of the business cycle. The remaining two dozen pages are devoted to a summary of the conclusions reached by various students regarding thirteen phenomena, such as employment, income, migration, births, suicides, criminality, etc., in their relation to trade fluctuations. If this booklet is intended as a syllabus, it achieves its purpose fairly

well. But if it means to defend or establish definite theses, as is hinted in the introduction, not many will remain satisfied—it touches on too many questions too cursorily.

M. M. BOBEN

Alphabetical index of occupations: fifteenth census of the United States (Washington: Supt. Docs. 1930. Pp. 527. \$1.)

Classified index of occupations: fifteenth census of the United States (Washington: Supt. Docs. 1930. Pp. 205. 50c.)

New Zealand: statistical report for the year 1928. (Wellington: Census and Statistics Office. 1930. Pp. li, 208. 4s.)

Report of the Committee on Statistics and Origin of Fires, May 22, 1930 (New York: National Board of Fire Underwriters. 1930. Pp. 7.)

Seasonal and cyclical movements of the loans and investments of Chicago banks. Bull. no. 30. (Urbana: Univ. of Illinois Bureau of Business Research. 1930. Pp. 34.)

Statistical report for the State of Indiana for the year ending September 30, 1929. (Fort Wayne: Legislative Bureau of the Indiana Library and Historical Dept. 1930. Pp. 217.)

In the
of Comm
ng Mac
(Oc.);
pp. 21
non by
Californ
Europe
motive
piled by
by J. V
velopm
The B
Ray H
and Tr
Causes
P. O. I
Equip
46, 10
Ameri

In t
Ameri
fifth v
have
nation
in Un

The
under

Th
tern
No. 1
Line

Se
Stor
of th
inqu

T
and
und
wer
on
(PE

S
by
as

DOCUMENTS, REPORTS, AND LEGISLATION

Industries and Commerce

In the series of Trade Information Bulletins published by the Department of Commerce have appeared: No. 691, *Markets for Sawmill and Woodworking Machinery in Scandinavia and the Baltic States*, by T. O. Klath (pp. 26, 10c.); No. 692, *Salvador as a Market for Foodstuffs*, by H. P. Macgowan (pp. 21, 10c.); No. 693, *Fruit Markets in Eastern Asia: A Joint Investigation by the United States Department of Commerce and the University of California*, by B. H. Crocheron and W. J. Norton (pp. 14, 10c.); No. 694, *European Motion-Picture Industry in 1929* (pp. 71, 10c.); No. 695, *Automotive Equipment and Construction Preferences in Foreign Countries*, compiled by G. F. Vialt (pp. 42, 10c.); No. 696, *Airports in Latin America*, by J. W. Angle and B. V. York (pp. 60, 10c.); No. 697, *Chain-Store Developments in Great Britain*, by R. S. Charles (pp. 16, 10c.); No. 698, *The Balance of International Payments of the United States in 1929*, by Ray Hall (pp. 74, 10c.); No. 699, *Australian Raisin and Currant Industry and Trade*, by E. C. Squire (pp. 26, 10c.); No. 700, *Credit Extension and Causes of Failure among Philadelphia Grocers*, by W. C. Plummer and P. O. Ritter (pp. 12, 10c.); No. 701, *Markets for American Motion-Picture Equipment in Asia, Africa, and Oceania*, compiled by N. D. Golden (pp. 46, 10c.); No. 702, *Markets for Fruit Juices and Fruit Sirups in Latin America*, by C. F. Stephenson (pp. 30, 10c.).

In the Trade Promotion Series have appeared: No. 93, *Railways of South America. Part III: Chile*, by W. R. Long (pp. 373, \$1.30); this is the fifth volume of a series on railways of the Latin American countries, which have now all been covered with the exception of Brazil. No. 95, *International Trade in Mica*, by J. Ulmer (pp. 70, 15c.); No. 96, *Ocean Routes in United States Foreign Trade*, by A. L. Cricher (pp. 33, 10c.).

The federal Department of Commerce has published a *List of Publications*, under date of May 15, 1930 (pp. 156).

The Interstate Commerce Commission report No. 15879 deals with *Eastern Class Rate Investigation*, under date of May 13, 1930 (pp. 483); and No. 17000 deals with *Rate Structure Investigation, Part 2, Western Trunk-Line Class Rates*, under date of May 6, 1930 (pp. 301).

Senate Document No. 146, 71st Congress, 2nd Session, deals with *Chain-Store System of Marketing and Distribution*, being a letter from the chairman of the Federal Trade Commission relative to the progress of the chain-store inquiry of the Commission (Washington, pp. 6).

The United States Tariff Commission has made a *Comparison of Imports and Consumption*, giving tables showing for 1927 (1) those articles dutiable under the bill as passed by the House of Representatives of which imports were less than 10 per cent of domestic consumption, and (2) for articles on the free list of that bill the ratio of imports to domestic consumption (pp. 66, 15c.).

Senate Document No. 123, 71st Congress, 2nd Session, contains *Reports by Members of Grain Futures Exchanges*. Part 1 of this report was printed as Senate Document No. 264, 70th Congress (Washington, 1930, pp. 347).

The *Thirteenth Annual Report of the Federal Farm Loan Board* for the year ended December 31, 1929, published as House Document No. 212, 71st Congress, 2nd Session, contains a detailed treatment of the work of the Board during the past year. The reorganization of the Federal Farm Loan Bureau was accomplished during 1929, and the report deals with the new administrative divisions.

The National Association of Wool Manufacturers (80 Federal Street, Boston, Massachusetts) has published two charts showing the fluctuations of wool prices as indicated by domestic wool prices and also as indicated by foreign top prices. Current prices are given by months covering the period 1926 into 1930.

Labor

- The federal Bureau of Labor Statistics has issued the following bulletins:
- No. 510, *Labor Legislation of Argentina* (March, 1930, pp. 124, 20c.).
 - No. 511, *Proceedings of the Sixteenth Annual Meeting of the International Association of Industrial Accident Boards and Commissions Held at Buffalo, New York, October 8-11, 1929* (April, 1930, pp. 345, 50c.).
 - No. 513, *Wages and Hours of Labor in the Iron and Steel Industry, 1929* (April, 1930, pp. 201, 30c.).
 - No. 514, *Pennsylvania Railroad Wage Data from Report of Joint Fact Finding Committee in Wage Negotiations, 1927* (May, 1930, pp. 209, 35c.).
 - No. 516, *Hours and Earnings in Bituminous Coal Mining, 1929* (May, 1930, pp. 63, 15c.).

The Women's Bureau of the Federal Department of Labor has issued: Bulletin No. 73, *Variations in Employment Trends of Women and Men* (pp. 141, 50c.); it is expected that the contents of this will be noted in a subsequent issue. No. 79, *Industrial Home Work* (pp. 20, 10c.) contains a list of references to reports which have been issued by various state bureaus.

Public Finance

The Hearings before the House Committee on Ways and Means, 71st Congress, 2nd Session, on H. R. 10165, referring to the bill to reduce international double taxation have recently been printed (pp. 50).

The following state documents dealing with taxation have appeared:

State of Connecticut Information Relative to the Assessment and Collection of Taxes, 1929, Public Doc. No. 48, Special Taxation Doc. No. 236 (Hartford, 1930, pp. 137).

Report of Kansas Tax Code Commission (Topeka, 1929, pp. 176).

New Hampshire State Tax Commission: Nineteenth Annual Report, Tax Year of 1929 (Concord, 1929, pp. 33).

State of New Jersey: Fourteenth Annual Report of the State Board of Taxes and Assessment for the Year Ending June 30, 1929 (Trenton, 1930, pp. 805).

State of Rhode Island and Providence Plantations: Taxation and Revenue Laws Compiled by the State Board of Tax Commissioners from the General and Public Laws, January 1, 1930 (Providence, 1930, pp. 203).

The Tax Code of Virginia, with All Amendments Enacted at the Session of the General Assembly of 1928 (Richmond, 1928, pp. 290).

NOTES

The following names have been added to the membership of the AMERICAN ECONOMIC ASSOCIATION since May 1:

Bradley, C. J., Experiment Station, Lexington, Ky.
 Bremer, C. D., 65 Broadway, New York City.
 Ellis, H. S., 1202 E. University Ave., Ann Arbor, Mich.
 Erlsman, F. R., Jr., 1315 W. Magnolia Ave., Fort Worth, Tex.
 Hawkins, E. D., Industrial Relations Section, Princeton University, Princeton, N.J.
 Helbing, A. T., Franklin College, Franklin, Ind.
 Herren, J. M., P. O. Box 2307, Auburn, Ala.
 Jordan, E. L., 87 Bowne St., Flushing, N.Y.
 Lassen, A. P., 2200 Dwight Way, Berkeley, Calif.
 Laukaitis, W. F., 217 Court House, Baltimore, Md.
 Long, J. J., 2440 Lake View Ave., Chicago, Ill.
 McGinnis, R. D., 366 Fairmont Ave., Zanesville, Ohio.
 McMurdie, M. J., 2121 New York Ave. N. W., Washington, D. C.
 Maudon, F. R. E., Social Science Research Council, 230 Park Ave., New York City.
 Miller, B. I., 1211 N. Calvert St., Baltimore, Md.
 Pilcher, D. J., University of Arizona, Tucson, Ariz.
 Studensky, P., 1794 Marmion Ave., New York City.
 Weber, P. J., 370 Elm Ave., Bogota, N.J.
 Wilson, C. W., Pittsburgh Railways Co., 435-6th Ave., Pittsburgh, Pa.
 Work, M. N., Tuskegee Normal and Industrial Institute, Tuskegee Institute, Ala.
 York, G. K., State Office Bldg., Sacramento, Calif.
 Zimmermann, E. M., 30 Broad St., New York City.

The Iowa Association of Economists and Sociologists held a two-day meeting May 16 and 17 at the University of Iowa, under the presidency of G. H. VonTungeln. Among the papers were the following: "The Changing Standards of Living in Iowa," by Elizabeth E. Hoyt, and "The Present Status and Some Probable Future Trends of Agriculture in Iowa," by M. G. Thornburg.

Announcement is made that the next distribution of grants-in-aid by the Social Science Research Council will be made in March, 1931. Applications will be received up to February 1 by the secretary, Walter R. Sharp, 230 Park Avenue, New York City.

Among the grants recently made are the following: John Bargate Appleton (Scripps College) to aid in the completion of his study entitled "The Agricultural Geography of the British Isles from an Economic and Social Point of View;" Edward Berman (University of Illinois) to aid in the publication of his study entitled "Labor and the Sherman Act;" William Haber (Michigan State College) to aid in the completion of his study entitled "Employment Agencies in Michigan: A Study of the Labor-Placing Agencies in Michigan, especially in the City of Detroit;" Abram Lincoln Harris, Jr., (Howard University) to aid in the completion of his study entitled "The Relation of Negro Finance Institutions to Business Enterprises;" Rowland Hill Harvey (University of California at Los Angeles) to aid in the completion of a "Biography of Samuel Gompers in Relation to the American Labor Movement;" James B. Hedges (Clark University) to aid in the completion of his study entitled "The Land Settlement and Colonization Work of the Land-Granting Railways of the United States and Canada;" Louis C. Hunter (Smith College) to aid in the completion of his study entitled "An Economic and Social History of Steamboat Transportation on the Western Rivers of the United States;" Arthur R. M. Lower (Wesley College, Winnipeg, Can-

ada) to aid in the completion of the "Collection and Editing of a Series of Documents Illustrative of the Economic and Social History of Canada from 1788;" George M. McBride (University of California at Los Angeles) to aid in the completion of his study entitled "The Land Tenure System of Chile;" Charles Frederick Roos (Cornell) to aid in the completion of his study entitled "Statistical Investigations concerning Demand and Cost of Production;" Norman Joseph Ware (Wesleyan University) to aid in the completion of his "History of the Labor Movement in the United States since 1895;" Erich Walter Zimmerman (University of North Carolina) to aid in the completion of his study entitled "The Time Element in the Production Process in Its Relation to the Problem of Price and Price Control, with Special Reference to the Distinction between Agricultural Annuals and Perennials."

Announcement is also made that applications for fellowships in agricultural economics and rural sociology will be received by Dr. E. G. Nourse, 26 Jackson Place, Washington, D.C., up to February 1, 1931. In March, 1930, 24 fellowships were given.

The first annual awards by the Social Science Research Council of fellowships to southern graduate students in the social sciences were made on March 27, 1930. Twenty-seven students were thus given fellowships.

Research fellowships in the social sciences were granted in February, 1930, to 30 individuals. Among the new appointments the following may be noted: Edison L. Bowers, assistant professor of economics, Ohio State University, project, "The Preventive Aspects of Unemployment Insurance;" Robert A. Brady, assistant professor of economics, University of California, project, "The 'Rationalization' of Industry in Germany;" Gladys L. Palmer, professor of economics and sociology, Hollins College, project, "The Effects of Recent Changes in the Textile Industry in Pennsylvania on the Policies of Textile Trade Unions, with Special Reference to the Full-Fashioned Hosiery Industry;" Blair Stewart, assistant professor of economics, Reed College, project, "Speculation and Market Price;" Earle M. Winslow, assistant professor of economics, Tufts College, project, "Administrative Tariff Practices as Factors in International Friction;" Ralph A. Young, instructor in economics, University of Pennsylvania, project, "The Balance of International Payments between Germany and the United States, 1925-1930."

The London School of Economics and Political Science offers a research studentship in 1930-31 of the value of £200 a year in addition to tuition fees, tenable for one year with a possible extension to two years. This will be awarded in October, 1930. Candidates should reply to the secretary of the School for a form of application which should be completed and returned not later than September 12, 1930.

A research studentship of the value of £200 a year in addition to tuition fees, tenable for two years, will also be awarded in October or November, 1930. Candidates are asked to submit with their applications either published work, prize essays or written work bearing their names, or a detailed scheme of research on the subject proposed for investigation. Application for this studentship should be made to the secretary of the School not later than October 1, 1930.

The Alvan T. Simonds annual economic contest for 1930 relates to the

subject of "Government Interference with the Free Play of Economic Forces." The first prize is \$1,000 and the second prize \$500. The contest closes December 31, 1930. For information address the Economic Contest Editor, Simonds Saw and Steel Company, 470 Main Street, Fitchburg, Massachusetts.

The Research Committee on Social Trends, Inc., has been incorporated to conduct a survey ordered by President Hoover. The board of directors is composed of Professor Wesley C. Mitchell of Columbia University, president, Professor Charles E. Merriam of the University of Chicago, Professor William F. Ogburn of the University of Chicago, Professor Howard W. Odum of the University of North Carolina, and Mr. Shelby M. Harrison of the Russell Sage Foundation. The subjects to be studied are the improvement of national health and vitality, and its bearing upon increased numbers of persons of "old age;" the changes in maladjusted, such as insane, feeble-minded, etc.; the effect of urban life upon mental and physical health; the institutional development to meet these changes; the problems arising from increased leisure changes in recreation; changes in occupations; occupations likely to diminish in importance and those likely to increase; changes in family life, in housing, in education; effect of inventions upon the life of people. It is expected that the survey will require about two or three years to complete.

"Industrial Migrations in the United States, 1914-1927" and "Manufacturing Trends in Iowa, 1914-1927" are two studies recently completed by Dr. H. H. McCarty of the Bureau of Business Research, College of Commerce, State University of Iowa.

The Bureau of Business Research of the College of Commerce, State University of Iowa has published since January, 1930, the *Iowa Business Digest*, giving a summary of business conditions in the state and in the nation. This is printed monthly with the exception of August and September.

Dr. R. W. Nelson, assistant professor of economics at the College of Commerce, State University of Iowa, is making an extensive study of the tax reform problem under the direction of the Iowa Joint Legislative Committee.

Stephen Warren Gilman, professor emeritus of business administration at the University of Wisconsin, died June 2, 1930.

Jan St. Lewinski, professor of political economy at the Academy of Commerce at Warsaw, died June 9, at the age of forty-five. Among his many contributions to economic literature may be mentioned: *The Industrial Evolution of Belgium*, 1911 in French; *The Origin of Private Property and the Formation of the Village Community*, 1913 in English; *The Founders of Political Economy*, 1922 in English; *Principles of Political Economy*, 1922 in Polish; and *Money, Credit and Prices*, 1929 in English.

The following notes concerning the Brookings Institution have been received:

The research fellows appointed for the coming academic year are: G. L. Belsley, reappointment; Julian S. Duncan of the faculty of Bryn Mawr College; Raymond W. Goldschmidt, Institut für Finanzwesen, Berlin; A. C. C. Hill, Jr., London School of Economics; Susumu Kabe, University of Michigan; Yau Sing Leong, reappointment; Martin L. Lindahl of the faculty of the University of Michigan; Meredith V. McDougal, Johns Hopkins University; Nathan Otton, the Statistisches Reichsamt, Berlin; Charles Norman, Leland Stanford University; Eleanor Poland of the research assistant staff, Harvard University; Barkev S. Sanders of the Children's Bureau; Carroll K. Shaw, University of Illinois; Carel Smit, University of Amsterdam; Henry J. Wadleigh, Oxford University; Marion L. Wadleigh, University of New Zealand; Kenneth O. Warner, reappointment.

Of this year's fellows who are leaving the Institution, James A. Barnes has accepted a teaching position with the University of Philadelphia; Lewis Corey will continue private research on "Wages and Prosperity"; Lora L. Deere will return to Radcliffe College on a fellowship; Winifred L. Frost will spend the year abroad; Joseph Stagg Lawrence will enter journalism; Fausto Pitigliani will return to Italy; Nathan Reich will teach at the City College of New York and also will join the staff of the Encyclopaedia of the Social Sciences; Herman Stoker will return to Cornell; and Carl B. Swisher will join the faculty of Columbia University.

H. G. Moulton, President of the Institution, is spending the summer and fall in the Orient in connection with a study of the economic position of Japan.

Of the Institute of Economics staff, L. R. Edminster taught during the summer quarter at the University of Virginia; Thomas Walker Page taught at the University of California; and L. S. Lyon is giving a course in the National Institute for Commercial and Trade Organization Executives, at Northwestern University. Leo Pasvolsky spent the spring and summer in Europe studying the problem of currency stabilization; and C. O. Hardy is spending the late summer and fall in Europe, in connection with a study of central banks. Sumner H. Slichter who has been with the Institute on a year's leave of absence from Cornell University, has accepted a position with the Harvard Graduate School of Business Administration. Marie Butler has joined the Institute staff as editor.

Of the Institute for Government Research staff, W. F. Willoughby was in Europe during the spring, and Fred M. Powell during the summer. Paul V. Betters, formerly on the faculty of Syracuse University, has accepted a position with the Institute.

Recent publications of the Brookings Institution are: *Birth Registration and Birth Statistics in Canada*, by Robert R. Kuczynski and *Bulgaria's Economic Position*, by Leo Pasvolsky.

Appointments and Resignations

Albert Abrahamson has been promoted to the rank of assistant professor of economics at Bowdoin College.

Victor Abrahamson of the University of West Virginia has been appointed graduate assistant in economics at Brown University for the academic year 1930-31.

Dr. C. E. ...
has been ap
Business Adm
Karl M.
been promot
Associate
College of C
also been ap
airs recent

Robert R.
the rank of

Howard
an economic

Harry C.
graduate a
1930-31.

Dr. I.
versity du

Russell
economics

Harry
assistant in

Dr. P.
Tariff C
Universi

Dr. T.
of Arka
College

M. I.
Univers

Prof.
at Pen

Pro
statist
summe

Vic
has re

Dr. C. E. Allen, who has been an instructor in the University of Illinois, has been appointed assistant professor of accounting in the College of Business Administration at Lehigh University.

Karl M. Arndt, instructor in economics in the University of Nebraska, has been promoted to the rank of assistant professor.

Associate Professor R. S. Atwood has been made assistant dean of the College of Commerce and Journalism at the University of Florida. He has also been appointed acting director of the Institute of Inter-American Affairs recently established at that university.

Robert Ray Aurner of the University of Wisconsin has been promoted to the rank of professor of business administration.

Howard A. Baker of Chicago University has accepted an instructorship in economics at Swarthmore College for the coming year.

Harry C. Banzhof of the University of Pennsylvania has been appointed graduate assistant in economics at Brown University for the academic year 1930-31.

Dr. I. R. Barnes will take over Professor Daniels' work at Yale University during the latter's absence.

Russell Bauder has been promoted to the rank of assistant professor of economics and commerce at the University of Missouri.

Harry P. Bell of Columbia University has been appointed graduate assistant in economics at Brown University for the academic year 1930-31.

Dr. Percy W. Bidwell has resigned his position with the United States Tariff Commission to accept an appointment as professor of economics at the University of Buffalo.

Dr. Truman C. Bigham, associate professor of economics at the University of Arkansas, has been appointed associate professor of economics in the College of Commerce and Journalism at the University of Florida.

M. L. Black, Jr., has been appointed instructor in accounting at Duke University.

Professor F. A. Bradford of Lehigh University gave a course in banking at Pennsylvania State College during the summer.

Professor E. C. Bratt of Lehigh University has been doing special statistical work on the staff of the Bethlehem Steel Company during the summer.

Victor Z. Brink, instructor in accounting in the University of Nebraska, has resigned to take a position with Arthur Andersen Company of Chicago.

Dean R. P. Brooks of the School of Commerce, University of Georgia has been awarded the Kahn Traveling Fellowship for the academic year 1930-31. He will leave the United States about the first of September and will spend most of his time in China, Japan, and India. Dean Brooks is director of the University of Georgia Institute of Public Affairs which held its fourth annual session in July last.

Stephen D. Brown has been appointed assistant professor of business administration at the University of Washington, Seattle, and will offer courses in business law.

William H. Brown of the University of Southern California has resigned as professor of economics to accept the headship of the department of economics and sociology at the University of Maryland.

Professor Malcolm H. Bryan of the University of Georgia, who was on leave during the past academic year doing research in state taxation problems, returns to his duties in the fall. The Bureau of Business Research during the coming academic year will publish the results of Professor Bryan's studies.

Caldwell Buck has resigned as instructor in economics at Lehigh University to accept a position with the American Telephone and Telegraph Company.

N. S. Buck has been promoted to the rank of professor of political economy at Yale University.

Donald F. Capen of the accounting assistantship staff of the College of Business Administration, University of Washington, Seattle, has been appointed to an instructorship at Armstrong College, Berkeley, California.

Assistant Professor Hugh Carter of the Wharton School of Finance and Commerce, University of Pennsylvania, will be on leave of absence to act as statistician for the Committee on the Cost of Medical Care, headquarters at Washington, D.C.

Dr. Wilfrid H. Crook of Bowdoin College has been promoted to the rank of associate professor of sociology and is to be on sabbatical leave during 1930-31.

James A. Cuneo, assistant instructor in the department of romance languages, has been appointed instructor in economics in the College of Business Administration of the University of Nebraska.

Morgan B. Cushing of Bowdoin College is resuming his courses after a year's sabbatical leave devoted to graduate study.

W. N. Daniels of Yale University has been granted sabbatical leave for the year.

Paul T. David, fellow in economics at Brown University, has been appointed instructor in economics for the academic year 1930-31.

Elmer E. Davidson of the teaching assistantship staff of the College of Business Administration, University of Washington, Seattle, has been appointed to an instructorship at Grinnell College for next year.

M. R. Davie has been promoted to the rank of associate professor in sociology at Yale University.

Horace B. Davis, recently professor of economics at Southwestern University, Memphis, will devote the coming year to writing in New York City.

Raymond C. Dein, assistant in economics in the University of Nebraska, has been appointed fellow in economics.

Professor H. M. Diamond of Lehigh University gave a course in social institutions at Pennsylvania State College during the summer.

Professor Carroll W. Doten of Massachusetts Institute of Technology has leave of absence for the first term of the coming academic year.

Howard Dykman, has been promoted from associate professor of insurance and economic history in the College of Commerce and Journalism at the University of Florida to full professor.

Robert F. Elder has been promoted to the rank of assistant professor of marketing at the Massachusetts Institute of Technology.

Professor F. H. Elwell of the School of Commerce at the University of Wisconsin, was on leave of absence during the second semester of 1929-30. During the summer he taught courses in accounting at the University of California at Berkeley.

Albert W. Ewbank, of the University of Indiana, has been elected instructor in business law in the School of Commerce of the University of North Dakota.

F. R. Fairchild of Yale University has been granted sabbatical leave for the next year.

Phillip G. Fox, of the University of Wisconsin has been promoted to the rank of associate professor of economics.

Dr. H. LaRue Frain, has been promoted to the rank of assistant professor of economics at the Wharton School of Finance and Commerce of the University of Pennsylvania.

Ragnar Frisch, of the University of Oslo has been at Yale University for a half year and will continue as visiting professor of economics for the first term of next year.

Domenico Gagliardo has been promoted to the position of associate professor at the University of Kansas.

Professor Martin Glaeser, of the University of Wisconsin gave courses in public utilities at the University of Chicago during the summer.

Dr. Julius Grodinsky has been promoted to the rank of assistant professor of finance at the Wharton School of Finance and Commerce of the University of Pennsylvania.

George Haines of Clark University will assist in courses in transportation at the University of Illinois during the academic year 1930-31.

James K. Hall, formerly of Stanford, has been appointed associate professor of business administration at the University of Washington, Seattle and will be in charge of the public utilities courses.

Professor Earl J. Hamilton, of Duke University has been granted an extension of his leave of absence to continue his price studies in Spain during the academic year 1930-31. He was recently promoted to the rank of professor of economics at Duke University.

Harry P. Hartkemeier has been appointed assistant professor of economics and commerce at the University of Missouri.

R. D. Haun has been promoted to an associate professorship in accounting at the College of Commerce, University of Kentucky.

Jean Hayden has been promoted to the rank of instructor in economics at Vassar College.

Lloyd A. Helms, formerly an assistant in the department of economics at the University of Illinois, will teach at Geneva College this year.

Algo D. Henderson, professor of business administration and business manager of Antioch College, has been appointed dean of the college.

Dr. Arnold K. Henry has been promoted to the rank of assistant professor of commerce and transportation at the Wharton School of Finance and Commerce of the University of Pennsylvania.

Dr. James M. Herring has been promoted to the rank of assistant professor of geography and transportation at the Wharton School of Finance and Commerce of the University of Pennsylvania.

W. J. Hiller, assistant actuary of the Bankers Life Insurance Company, has been appointed lecturer in insurance at the University of Nebraska.

A. Ford Hinrichs of Brown University has been promoted to an associate professorship in economics.

Professor Paul T. Homan of Cornell University gave courses in the history of economic thought and contemporary thought at the University of Wisconsin during the summer session.

Professor Calvin B. Hoover, who has been spending the academic year 1929-30 as a social science research fellow carrying on studies in Russia, will resume his work at Duke University in September.

Ruth Gillette Hutchinson has been promoted to the rank of associate professor of economics at Vassar College.

Olin Ingraham has been appointed assistant professor of economics at the Massachusetts Institute of Technology.

Kathleen Jackson has resigned as instructor in economics at Vassar College.

Professor John W. Jenkins of the University of Georgia will serve as acting dean and as director of the Bureau of Business Research during the absence of Dean Brooks.

L. D. Jennings has been appointed assistant professor of finance at the University of Kansas.

Dr. Jens P. Jensen has been granted a leave of absence from the University of Kansas to do research in taxation at the University of Chicago.

Professor Harry Jerome of the University of Wisconsin has been on leave of absence since the beginning of the second semester of 1929-30. He has been traveling in Europe and will return the first of September.

Chester Lloyd Jones, director of the School of Commerce at the University of Wisconsin, conducted the annual seminar in Mexico during the summer, sponsored by the Committee on Cultural Relations with Latin America.

Dr. Clyde M. Kahler has been promoted to the rank of assistant professor of insurance at the Wharton School of Finance and Commerce of the University of Pennsylvania.

A. G. Keller of Yale University has been granted sabbatical leave for next year.

Will F. Kissick has been appointed assistant to the director of the Bureau of Business Research at the University of Kansas.

W. A. Krick, who came to the University of Georgia School of Commerce as substitute for Professor M. H. Bryan, has been given a research fellowship at the University of Chicago and will take up his duties in September.

A. J. Lawrence has been promoted to an assistant professorship in economics at the College of Commerce, University of Kentucky.

B. F. Lemert of Columbia University has been appointed instructor in economics and economic geography at Duke University.

Bruce Lockling, formerly at Washington State College, has been appointed assistant in the department of economics at the University of Illinois during the academic year 1930-31.

Dr. R. H. Lounsbury has resigned as associate professor of economics at Lawrence College, to accept a position teaching courses in economic principles and money and banking at the University of Illinois.

Professor E. Ray McCartney of Southwestern College, has been appointed to a fellowship in economics at the University of Nebraska.

Joseph L. McConnell of the University of Iowa has been appointed research assistant in the Bureau of Business Research, College of Commerce, University of Kentucky.

J. L. McDonald of Dartmouth College has been promoted to the rank of full professor of economics.

Dr. Archibald MacDonald McIsaac of Princeton University has been promoted to the rank of assistant professor.

W. H. McPherson has resigned his instructorship in economics at Dartmouth College to accept an assistant professorship at Cleveland University.

Paul Malone has been appointed director of the Business Placement Bureau at the University of Kansas.

Warren H. Marple has left the staff of the Federal Trade Commission to become instructor in economics at the University of Buffalo.

Perry Mason, instructor in economics at the University of Michigan, will be associate professor of business administration at Antioch College next year.

Dr. Lewis A. Maverick has been appointed lecturer in economics at the University of California at Los Angeles.

Professor L. Douglas Meredith of the University of Vermont will be on leave of absence during the next academic year, and plans to attend the Graduate School of Yale University, where he has been awarded a fellowship.

Charles J. Miller of the College of Business Administration, University of Washington, Seattle, has been made assistant professor of business administration.

Professor Harry E. Miller of Brown University has been promoted to a full professorship of political economy.

Herbert E. Mills, for forty years professor of economics in Vassar College and the first professor of that subject in that college, takes a leave of absence next year and will retire at the end of the year.

Vernon G. Morrison, instructor in economics at the University of Nebraska, has been appointed research assistant in government finance at the University of Chicago.

Albert R. Mott of the University of Michigan has been appointed assistant instructor in accounting at the University of Nebraska.

Miss Mabel Newcomer will be chairman of the department of economics at Vassar College.

A. J. Nichol of the Graduate School of Columbia University has been appointed instructor in economics at Duke University.

Walter F. O'Keeffe of Duke University has been appointed research assistant in the Bureau of Business Research, College of Commerce, University of Kentucky.

Dr. Elinor Pancoast, associate professor of economics at Goucher College, is serving as acting dean of the college.

W. F. Payne has been appointed instructor in economics at Lehigh University.

D. J. Pilcher, formerly instructor in public finance at the University of Southern California, who completed his residence work for the Ph.D. degree at the University of Virginia, has been appointed assistant professor of business administration at the University of Arizona.

Alden J. Plumley of the University of California has been appointed graduate assistant in economics at Brown University for the academic year 1930-31.

Adjunct Professor L. B. Raisty of the accounting department of the School of Commerce, University of Georgia, will return to the University in September after a year's leave which he has spent at the University of Texas.

Miss Fredlyn Ramsey has been appointed assistant in economics at Vassar College.

John R. Riggleman has resigned as assistant professor of economics at the University of California in Los Angeles to accept a position as economist in the United States Bureau of Standards.

George E. Roberts, vice-president of National City Bank of New York, has been appointed a member of the gold delegation, a sub-division of the Financial Committee of the League of Nations. The appointment, authorized by the Council of the League of Nations, is to fill the vacancy created by the resignation of Professor O. M. W. Sprague.

J. Harvey Rogers of the University of Missouri has been appointed professor of political science in the Graduate School of Yale University.

Colvin P. Rouse has been promoted to an assistant professorship in economics at the College of Commerce, University of Kentucky.

Dr. Karl W. H. Scholz has been promoted to the rank of professor of economics at the Wharton School of Finance and Commerce of the University of Pennsylvania.

Karl M. Scott of the University of Illinois has accepted the position of assistant professor of economics in the School of Commerce at the University of North Dakota for the coming year.

Dr. Thorsten Sellin has been promoted to the rank of professor of sociology at the Wharton School of Finance and Commerce of the University of Pennsylvania. He will be on leave of absence during 1930-31 to act as consultant in criminology with the Bureau of Social Hygiene of New York City.

William H. Shannon has been appointed instructor in accounting and statistics at the University of Kansas.

James H. Shoemaker of Harvard University has been appointed an assistant professor of economics at Brown University.

Clifford D. Spangler, instructor in insurance at the University of Nebraska, has been granted leave of absence to accept a temporary appointment as insurance examiner in the Department of Trade and Commerce of the State of Nebraska.

O. M. W. Sprague, professor of money and banking at Harvard University, has resigned as a member of the gold delegation, a sub-division of the Financial Committee of the League of Nations, to join the permanent staff of the Bank of England as successor to Professor Walter Stewart, formerly head of the research department of the Federal Reserve Board, who is returning to the United States.

N. J. Spykman of Yale University has been granted sabbatical leave for next year.

C. M. Stephenson of Emory University has been appointed research assistant in the Bureau of Business Research, College of Commerce, University of Kentucky.

Dr. Paul Studensky, lecturer in public finance, has been appointed assistant professor of economics at New York University.

M. R. Sullivan has been promoted to an assistant professorship in economics at the College of Commerce, University of Kentucky.

Cleon O. Swayzee, instructor in economics in the Extension Division of Columbia University, has been appointed assistant professor of personnel management at the University of Nebraska.

Joseph H. Taggart has been promoted to the position of associate professor at the University of Kansas.

Dr. D. J. Teviotdale of Leland Stanford University has been appointed associate professor at the University of Kansas during the leave of absence granted Professor Jens P. Jensen.

Professor Charles S. Tippetts of the University of Buffalo taught at the University of Washington College of Business Administration during the second term of the summer quarter.

Ralph B. Tower is research investigator in public finance with the New York State Tax Commission and part-time instructor in economics at Cornell University.

Arva W. Wann of the accounting assistantship staff of the College of Business Administration, University of Washington, Seattle, has been appointed to an instructorship at Pacific University.

Dr. Ralph J. Watkins has resigned from the research staff of the National Bureau of Economic Research to accept the position of director of the Bureau of Business Research and professor of statistics at the University of Pittsburgh.

P. K. Whelpton of the Scripps Foundation for Research in Population Problems of Miami University will be in Mexico from June to October continuing a study of certain population and agricultural problems of Latin America.

Dr. B. P. Whitaker will give Professor Fairchild's courses at Yale University during the latter's absence.

Dr. John R. Whitaker has been promoted to the rank of assistant professor of merchandising at the Wharton School of Finance and Commerce of the University of Pennsylvania.

Professor K. M. Williamson of Wesleyan University will be on leave of absence during the academic year 1930-31. He will be in the Republic of Colombia from August to December, 1930, as a member of the Kemmerer Commission to that country. The rest of the year will be spent partly in Europe and partly in the United States.

H. W. Wilson of Brown University has been appointed graduate assistant in economics for the academic year 1930-31.

Elmer Wood of North Carolina State College has been made professor of economics at the University of Missouri.

Wallace O. Yoder, formerly instructor at the University of Iowa and at Syracuse University, has been appointed instructor in economics at the University of Buffalo.

TWENTY-SEVENTH LIST OF DOCTORAL DISSERTATIONS IN POLITICAL ECONOMY IN PROGRESS IN AMERICAN UNI- VERSITIES AND COLLEGES

Students whose period of continuous non-residence exceeds three years are omitted from the list. The last date given is the probable date of completion.

The first list of this kind was dated January 1, 1904, and was sent to all members, but not regularly bound in the publications. The subsequent lists have appeared in the publications as follows:

- Second list, 1905, in third series, vol. vi, p. 737.
- Third list, 1906, in third series, vol. vii, no. 3, supplement, p. 43.
- Fourth list, 1907, in third series, vol. viii, no. 2, supplement, p. 42.
- Fifth list, 1908, in the *Bulletin* for April, 1908, p. 69.
- Sixth list, 1909, in the *Bulletin* for April, 1909, p. 16.
- Seventh list, 1910, in the *Bulletin* for March, 1910, p. 12.
- Eighth list, 1911, in the *Review* for March, 1911, p. 212.
- Ninth list, 1912, in the *Review* for June, 1912, p. 519.
- Tenth list, 1913, in the *Review* for June, 1913, p. 527.
- Eleventh list, 1914, in the *Review* for June, 1914, p. 524.
- Twelfth list, 1915, in the *Review* for June, 1915, p. 476.
- Thirteenth list, 1916, in the *Review* for June 1916, p. 499.
- Fourteenth list, 1917, in the *Review* for June 1917, p. 485.
- Fifteenth list, 1918, in the *Review* for June, 1918, p. 459.
- Sixteenth list, 1919, in the *Review* for June 1919, p. 433.
- Seventeenth list, 1920, in the *Review* for September, 1920, p. 692.
- Eighteenth list, 1921, in the *Review* for June, 1921, p. 388.
- Nineteenth list, 1922, in the *Review* for June, 1922, p. 380.
- Twentieth list, 1923, in the *Review* for September, 1923, p. 571.
- Twenty-first list, 1924, in the *Review* for September, 1924, p. 601.
- Twenty-second list, 1925, in the *Review* for September, 1925, p. 593.
- Twenty-third list, 1926, in the *Review* for September, 1926, p. 556.
- Twenty-fourth list, 1927, in the *Review* for September, 1927, p. 574.
- Twenty-fifth list, 1928, in the *Review* for September, 1928, p. 589.
- Twenty-sixth list, 1929, in the *Review* for September, 1929, p. 533.

The present list specifies doctoral dissertations completed and accepted by the various universities, and in cases where a publishing company was reported, this has been given. Titles not marked "completed" are assumed to be still in preparation. It will be noted that this year many thesis titles in the field of sociology are omitted, inasmuch as a list is published in the *American Journal of Sociology*.

Theory and Its History

- H. H. ANDERSON, A.B., Iowa State Teachers College, 1923. Social and economic ideas in Daniel Defoe. 1930. *Chicago*.
- RAYMOND TOMLINSON BOWMAN, B.S., Pennsylvania, 1925. Price fixing under some peculiar conditions of joint cost. 1931. *Pennsylvania*.
- ELMER C. BRATT, B.A., Nebraska, 1925; M.A., 1926. The concept of elasticity in economics. 1930. *Wisconsin*.
- GEORGE JOHNSON CADY, Ph.D., Northwestern, 1929. American wage theories prior to 1840. Accepted.
- EWAN CLAGUE, B.A., Washington, 1917; M.A., 1921. Theory and measurement of physical productivity. *Wisconsin*. Accepted.
- CHARLES WOOLSEY COLE, A.B., Amherst, 1927; A.M., Columbia, 1928. French mercantilism before Colbert. 1931. *Columbia*.
- N. H. COMISH, B.S., Utah Agricultural College, 1911; M.S., Wisconsin, 1915. The

- development of consumption into an organized body of thought. 1929. *Wisconsin*. Completed.
- LYON E. DEVOL, A.B., Ohio State, 1923; A.M., 1925. Diminishing returns in economic theory and practice. 1931. *Michigan*.
- RICHARD VINCENT GILBERT, B.S., Harvard, 1923; A.M., 1925. The theory of international payments. 1930. *Harvard*. Completed.
- ALBERT EDWARD GRAUER, B.A., British Columbia, 1925. The supply factor in the theory of value. 1930. *California*.
- ALTON R. HODGKINS, Ph.D., Johns Hopkins, 1929. Pedro Rodriguez Campomanes, a representative Spanish economist of the time of Adam Smith. Accepted.
- PANG-CHEN HUANG, A.B., Eastern University, China, 1925; M.B.A., New York University, 1927. Economic principles of Lao-tze and his school. 1930. *Columbia*.
- A. D. H. KAPLAN, B.S., New York University, 1913; A.M., Denver, 1923. Henry C. Carey. 1930. *Johns Hopkins*. Accepted.
- WILLIAM TIEN-CHEN LIU, B.A., Carroll, 1926; M.A., Wisconsin, 1927. The development of the surplus concept in economics. 1930. *Northwestern*. Completed.
- AUGUST MAFFRY, A.B., Missouri, 1926; M.A., 1928. Experimentalism in economics. 1930. *Missouri*.
- LAWRENCE PASEL, A.B. and LL.B., Illinois Wesleyan, 1922; A.M., Columbia, 1923. Charles Davenant, economist. 1930. *Columbia*.
- CARL JOHANN RATZLAFF, B.S., Minnesota, 1922; A.M., 1925; A.M., Harvard, 1928. "Free competition" in the writings of some English economists. 1930. *Harvard*. Completed.
- KENNETH W. ROWE, A.B., Carleton College, 1929. Mathew Carey. 1932. *Johns Hopkins*.
- ABRAHAM GEORGE SILVERMAN, S.B., Harvard, 1921; A.M., Stanford, 1923; A.M., Harvard, 1924. The international trade of Great Britain, 1880-1913: a statistical analysis of some aspects of the theory of international trade and prices. 1930. *Harvard*. Completed.
- MAY WOOD SIMONS, Ph.B., Chicago, 1906; A.M., Northwestern, 1910. The history of American economic thought prior to 1837. 1930. *Northwestern*. Completed.
- BRAINERD ALDEN THRESHER, S.B., Massachusetts Institute of Technology, 1920; A.M., Harvard, 1928. An inductive or historical test of Böhm-Bawerk's assumptions as to the greater productivity of roundabout capitalistic production. 1932. *Harvard*.
- VERNON ORVAL WATTS, A.B., University of Manitoba, 1918; A.M., Harvard, 1923. The economic and technological concepts of production. 1931. *Harvard*.

Economic History and Geography

- J. L. BAKHUYSEN-SCHULD, B.S., University of Leyden, 1919; A.M., 1920; LL.B., 1921. South America and the protection of its natural resources. 1931. *Columbia*.
- G. W. BARBOUR, A.B., Ohio State, 1918; A.M., Chicago, 1920. Political and economic causes for the growth of Cleveland, Ohio, 1820-1860. 1930. *Chicago*.
- MALCOLM H. BRYAN, A.B., Illinois, 1924; A.M., 1925. The financial history of Georgia during the Civil War and reconstruction period. 1930. *Chicago*.
- J. L. CATE, A.B., Texas, 1924; A.M., 1925. The influence of the Norman Conquest upon commerce. 1930. *Chicago*.
- TROY J. CAULEY, B.A., Texas, 1925; M.A., 1926. The trail driving era. 1931. *Wisconsin*.

- JOSEPH DATT, C.E., Brooklyn Polytechnic Institute, 1927; A.M., Columbia, 1928. Some social and economic aspects of the Bible. 1931. *Columbia*.
- C. M. DESTLER, A.B., Wooster, 1925; A.M., Chicago, 1928. The life of James R. Forgan. 1930. *Chicago*.
- ESTHER ELIZABETH ESPENSHADE, Ph.B., Chicago, 1920. The economic history of Chicago, 1850-1871. 1932. *Chicago*.
- CHRISTOPHER JAMES FAGAN, B.S., Providence College, 1928; A.M., Catholic University of America, 1929. The industrial development of the District of Columbia. 1932. *Catholic*.
- HERBERT FIELD, A.B., Union Theological Seminary, 1909; A.M., Columbia, 1921. The anti-rent movement in New York. 1931. *Columbia*.
- MICHAEL FLORINSKY, Gymnasium, Kief, 1913; Artillery School, 1915. Effects of the war on the social conditions of Russia. 1930. *Columbia*.
- SISTER EUCHARISTA GALVIN, Ph.D., Chicago, 1929. The influence and conditions affecting the settlement of Minnesota, 1837-1860. *Chicago*. Accepted.
- MAX GIDEONSE, A.B., University of Rochester, 1925; A.M., 1926. Dutch trade in the Baltic in the eighteenth century. 1931. *Harvard*.
- W. B. GOEBEL, A.B., Wake Forest, 1925; A.M., Duke, 1926. The Industrial Revolution in North Carolina. 1930. *Chicago*.
- RACHEL MARSHALL GOETZ, Ph.B., Chicago, 1923; A.M., 1927. Scientific background of the industrial revolution; the steam engine as a type case. 1930. *Chicago*.
- LAWRENCE A. HARPER, A.B., California, 1922; A.M., 1924. The enforcement of the Navigation Acts in England and America, 1660-1696. 1931. *Columbia*.
- VIRGINIA D. HARRINGTON, A.B., Barnard, 1924; A.M., Columbia, 1925. The New York merchant in the eighteenth century. 1930. *Columbia*.
- S. H. HORBS, B.A., North Carolina, 1916; M.A., 1917. North Carolina: economic and social. 1929. *Wisconsin*. Completed.
- OTIS H. HOLMES, B.S., Whitman, 1923; A.M., Columbia, 1927. The economic opinions of Henry Clay. 1930. *Columbia*.
- HARRY P. JENKINS, B.A., Acadia, 1927. An economic appraisal of colonial expansion. 1930. *Chicago*.
- CARL SMITH JOSLYN, A.B., Harvard, 1920. The social origins of American business leaders. 1930. *Harvard*. Completed.
- FREDERIC CHAPIN LANE, A.B., Cornell, 1921; M.A., Tufts, 1922. Venetian ships and ship builders of the fifteenth and sixteenth centuries. 1930. *Harvard*. Completed.
- SAMUEL MCKEE, JR., A.B., Columbia, 1925; A.M., 1926. Labor in the colony of New York. 1930. *Columbia*.
- ISABEL MCKENZIE, A.B., Barnard, 1912; A.M., Columbia, 1914. Social activities of English Friends in the periods of the Industrial Revolution. 1931. *Columbia*.
- SAMUEL JUSTUS MCKINLEY, A.B., Franklin and Marshall, 1926. Commercial history of Portsmouth, New Hampshire. 1931. *Harvard*.
- SISTER MARY AMBROSE MULHOLLAND, A.B., Mt. St. Joseph, 1919; A.M., Notre Dame, 1921. The statutes of the guilds of Toulouse. 1931. *Columbia*.
- KASSIM NEBIOLOU, B.S., Robert College, 1926; Diplome, Ecole des Sciences Politiques, Paris, 1928. The economic policy of New Turkey. 1930. *Columbia*.
- EVELYN GIBSON NELSON, A.B., Mt. Holyoke, 1920; A.M., Radcliffe, 1921. The history of the English frame work knitting industry, 1589-1850. 1930. *Harvard*. Completed.

- ROBERT DEAN PATTON, A.B., B.S., Ohio State, 1922; A.M., 1926. The evolution of competitive pricing. 1931. *Columbia*.
- R. C. PETRY, A.B., Manchester, 1926; A.M., Chicago, 1927. Franciscan poverty in the light of thirteenth century economic conditions. 1930. *Chicago*.
- R. H. RECORDS, A.B., Oklahoma, 1922; A.M., 1923. Land as a basis for social discontent in the New England colonies prior to 1776. 1930. *Chicago*.
- MAXWELL H. SAVELLE, A.B., Columbia, 1925; A.M., 1926. George Morgan, a typical eighteenth century business man in America. 1931. *Columbia*.
- FRANK ALLAN SOUTHEARD, JR., A.B., Pomona, 1927. American industry in Europe. 1930. *California*.
- R. T. THOMPSON, A.B., Wake Forest, 1917; A.M., 1918. The New Jersey merchant, 1785-1840. 1931. *Columbia*.
- LOYAL GARIS TILLOTSON, Ph.B., Chicago, 1914; M.B.A., Northwestern, 1926. The economic history of Peoria, Illinois. 1931. *Chicago*.
- ELIZABETH LANE WATERMAN, A.B., Columbia, 1924; A.M., Radcliffe, 1925. Wages and standard of living of English labor, 1700-1790. 1929. *Radcliffe*. Completed.
- ELIZABETH Y. WEBB, Ph.D., Robert Brookings, 1929. Industrial development in North Carolina. Accepted.
- ALFRED J. WRIGHT, A.B., Michigan, 1922; A.M., Pennsylvania, 1925. Industrial development of Southwestern Ohio. 1930. *Pennsylvania*.
- ETHEL CLARK WRIGHT, A.B., Acadia, 1916. The genesis of the civil engineer. 1931. *Radcliffe*.
- RALPH A. YOUNG, Ph.D., Pennsylvania, 1930. The international financial position of the United States. Accepted. (Published by National Industrial Conference Board.)

Agriculture, Mining, Forestry, and Fisheries

- RUTH ALLEN, A.B., Texas, 1921; A.M., 1923. Women on central Texas farms. 1930. *Chicago*.
- BEN F. ALVORD, B.S., Illinois, 1923; M.S., 1924. Shifts in agricultural production in the Red River Valley in Minnesota. 1931. *Minnesota*.
- JOSÉ POTENCIANO APOSTOL, B.C.S., Philippines, 1921; M.A., 1925. The agricultural development of the Philippines during the American régime. 1931. *Chicago*.
- W. W. ARMENTROUT, B.S.A., Tennessee, 1916; M.A., Wisconsin, 1925. Economic aspects of county livestock shipping organization. 1931. *Minnesota*.
- IRA W. ARTHUR, B.S., Iowa State, 1916; M.S., 1927. Market movement of hogs. 1931. *Chicago*.
- RUTH WHELOCK AYRES, Ph.D., Robert Brookings, 1929. A study of the problems arising out of American ownership of oil properties in Mexico. 1930.
- ROBERT OTIS BAUSMAN, B.S., Purdue, 1914; M.S., Delaware, 1924. Some economic problems of farm organization on tenant-operated farms in Delaware. 1930. *Cornell*.
- ARSENIO M. BAYLA, B.A., Philippines, 1918; M.S., Wisconsin, 1928. Comparative study of the agricultural credit system in the United States and selected countries. 1930. *Wisconsin*.
- ARI ELIZABETH BEYNON, A.B., Nebraska, 1917; A.M. 1920. Agrarian problems of Mexico. 1930. *University of Washington*.

- KNUTE BJORKA, B.S., Minnesota, 1916; M.S., 1922. The market news of the live stock industry. 1930. *Chicago*.
- HOWARD BARTON BOYD, B.S.A., Saskatchewan, 1923. Some factors affecting the price for eggs received by commercial poultry farmers in New York State. 1923. *Cornell*.
- MARVIN ADEL BROOKER, B.S.A., Florida, 1926; M.S.A., 1927. A study of the cost of transportation of Florida citrus fruit with comparative costs from other producing areas. 1931. *Cornell*.
- WARREN DAVID BRUSH, Ph.D., American University, 1930. Utilization of beech, birch and maple in the northeast. Completed.
- J. LOSSING BUCK, B.S., Cornell, 1914; M.S., 1925. Chinese rural economy. 1925. *Cornell*.
- ROLAND FRANKLIN BUCKNAM, Ph.D., Cornell, 1929. An economic study of farm electrification in New York State. Accepted.
- ROY CHRISTOPHER CAMPBELL, B.S., Clemson College, 1921; M.S., North Carolina, 1923. A study of price and local marketing of cotton in North Carolina. *Cornell*.
- CLAYTON B. CARUS, B.S., Leland Stanford, 1913; M.A., 1917. The minor commodities of the American tropics. 1930. *Virginia*.
- MARTIN PAUL CATHERWOOD, B.S., Illinois, 1926; M.S., 1927. A production study of the New York milk supply. 1930. *Cornell*.
- WILLIAM LANE CAVERT, Ph.D., Cornell, 1929. Sources of power on 536 Minnesota farms. Accepted.
- T. WALLACE CHESB, B.S., Mississippi A. & M., 1923. Land speculation. 1931. *Wisconsin*.
- ALFRED KAIMING CHIU, A.B., Boone University, China, 1921; A.M., Harvard, 1927. An analysis of the reporting and information service of the United States Department of Agriculture. 1931. *Harvard*.
- CLARENCE E. CLEMENT, B.S., New Hampshire, 1906; M.A., American, 1927. The market milk industry in the United States; its history, present economic problems, and its future. 1931. *American University*. Completed.
- HOBART S. COOPER, B.A., Tennessee, 1924; M.A., 1925. Swiss colonies in the United States, a study of tendencies in the selection and utilization of land. 1931. *Wisconsin*.
- REX WARFIELD COX, B.S., Illinois, 1914; M.S., Cornell, 1923. Factors affecting the price of corn. *Cornell*.
- RICHARDSON CREEL, A.B., Alabama, 1925; A.M., Trinity College, 1928. Mining in the northeastern colonies. 1930. *Columbia*.
- GARNET H. CUTLER, B.S.A., Toronto, 1919; M.A., Wisconsin, 1925. Canada's farm trade in agricultural products. *Wisconsin*. Accepted.
- D. C. DVORACEK, B.S., Minnesota, 1913. Economic factors in land utilization in a typical cut over county. 1931. *Minnesota*.
- S. DRUTEU, A.B., Roumania, 1912; M.E., certificate, Berlin, 1918. Government aid for the American farmer. 1930. *Columbia*.
- W. H. EBLING, B.A., Wisconsin, 1922; M.S., 1925. Distribution of gross farm income in Wisconsin. *Wisconsin*. Accepted.
- JOHN C. EVANS, B.S., Pennsylvania, 1925. Summer and winter occupations of agricultural workers residing in Philadelphia. 1932. *Pennsylvania*.

- 1930] HORACE C. FILLEY, B.A., Nebraska, 1903; M.A., 1911. The effects of inflation and deflation upon Nebraska agriculture, 1914-1929. 1932. *Minnesota*.
- BENJAMIN H. FRAME, B.S., Missouri, 1921; A.M., 1925. The flow of grain to terminal markets. 1930. *Chicago*.
- RUDOLPH K. FROKER, B.S., Minnesota, 1925; M.A., 1927. Economic shifts in the marketing of dairy products, with particular reference to Wisconsin. 1931. *Minnesota*.
- JAMES P. GEORGE, Ph.D., Illinois, 1930. An economic inquiry into the characteristics and use of land for pasture with special reference to Illinois. Accepted.
- HORACE GILBERT, A.B., University of Washington, 1923; M.B.A., Harvard, 1926. The application of business methods to agriculture. 1930. *Harvard*.
- CLIFFORD WILLIAM GILBERT, Ph.D., Cornell, 1929. An economic study of tractors and motor trucks on New York farms. Accepted.
- JOSEPH SIDNEY GOULD, Ph.D., Robert Brookings, 1929. Over-production in the petroleum industry. Accepted.
- HENRY CLARK GRANT, B.S.A., University of Manitoba, 1922; M.A., 1926. The marketing of barley. 1931. *Stanford*.
- ARTHUR HALLAM, B.A., Wisconsin, 1914. The egg industry in the United States. 1932. *Wisconsin*.
- FLOYD ARTHUR HARPER, B.S., Michigan State, 1926. Financial management and condition of coöperatives in New York. 1931. *Cornell*.
- HARRY PELLE HARTKEMEIER, B.S., Louisville, 1927; A.M., Harvard, 1928. The weather factor in the study of the supply of agricultural commodities. 1930. *Chicago*.
- EARL S. HASKELL, B.S.A., M.S.A., Iowa State College, 1908. Persian agriculture. 1931. *American University*. Completed.
- CHARLES W. HAUCK, B.S., Ohio State, 1916; M.S., 1927. Quality factors affecting the price of fruit and vegetables on the Columbus market. 1932. *Ohio State*.
- RICHARD BROOKS HEFLEBOWER, A.B., California, 1925. The price forming factors for some of the staple agricultural articles produced in Idaho. 1930. *California*.
- GEORGE HENDRICKS, A.B., Georgia, 1921; A.M., 1922. The rice planters. 1931. *Columbia*.
- CLARENCE HENDRICKSON, B.S., Wisconsin, 1918; M.S., 1921. Study of tobacco marketing in the Connecticut valley. 1929. *Wisconsin*. Completed.
- FORREST FRANK HILL, Ph.D., Cornell, 1930. A statistical study of the problem of making long-term mortgage loans on farm property in New York State. Accepted.
- C. B. HOWE, B.S., Washington, 1922; M.A., Minnesota, 1925. Some local market price problems affecting the New Jersey egg producers. 1930. *Minnesota*.
- J. B. HUTSON, B.S., Kentucky, 1917; M.S., Wisconsin, 1925. The development and application of a method of research in agricultural economics. 1930. *Columbia*.
- CHARLES DONALD JACKSON, S.B., Northwestern, 1920; M.B.A., 1921; A.M., Harvard, 1923. Agricultural credit. 1931. *Harvard*.
- MELVIN C. JACOBS, A.B., Ursinus, 1912; A.M., Princeton, 1914; B.D., Princeton Theological Seminary, 1915. The history of the irrigation movement. 1930. *Columbia*.
- WARD C. JENSEN, B.S., California, 1917; M.S., Cornell, 1920. A critical examination of methods used in farm organization studies to obtain costs. 1930. *Wisconsin*.
- PAUL E. JOHNSTON, B.S., Illinois, 1917; M.S., 1926. Farm profits in central Illinois, 1925-1929. 1931. *Illinois*.

- HENRY KELLER, JR., B.A., Pennsylvania State, 1920; M.S., Wisconsin, 1921. The Monmouth County potato area of central New Jersey—a study of comparative advantage. 1931. *Wisconsin*.
- LESTER S. KELLOGG, B.A., Northwestern, 1927; M.A., 1928. The demand for wheat. 1931. *Chicago*.
- CHARLES LOUIS KNIGHT, B.S., Virginia, 1925; M.S., 1926. A study of copper prices 1860-1929. 1931. *Pennsylvania*.
- WILLIAM J. KURTZ, B.S., Michigan State, 1919; M.S., Wisconsin, 1922. Comparative study of the world price and the United States price of high protein wheat. 1931. *American University*. Completed.
- DOROTHY LAMPEN, Ph.D., Johns Hopkins, 1929. Economic and social aspects of federal reclamation. (Published by Johns Hopkins Press.)
- THOMAS ELDRIDGE LAMONT, B.S., Cornell, 1927; M.S.A., 1928. Cost of growing apples Newfane township, Niagara County, New York, 1926, 1927, 1928. 1931. *Cornell*.
- ROSS L. LARGE, B.A., Denver, 1912; M.A., Wisconsin, 1913. The beet sugar industry. 1930. *Wisconsin*.
- C. T. LEAVITT, A.B., Beloit, 1925; A.M., Chicago, 1928. History of the livestock and packing industries in America, 1775-1840. 1930. *Chicago*.
- HOON K. LEE, G.S., Imperial University of Tokyo, 1924; M.S., Kansas State Agricultural, 1927. History of land systems and policies in Korea. 1929. *Wisconsin*. Completed.
- T. W. LELAND, B.A., Wisconsin, 1921; A.M., 1922. An economic study of the Texas Farm Bureau Cotton Association, 1921-1929. 1930. *Pennsylvania*.
- GEORGE M. LEWIS, B.S., Texas Agricultural and Mechanical, 1924; M.B.A., Harvard, 1927. Live stock marketing. 1931. *Chicago*.
- ORSON G. LLOYD, B.S.A., Utah Agricultural, 1910; M.S., Wisconsin, 1912. Administration of groups of farms under the manager plan. 1932. *Wisconsin*.
- LEONARD M. LOGAN, B.A., Oklahoma, 1914; M.A., Columbia, 1923. The economic organization of the petroleum industry. 1930. *Wisconsin*.
- W. V. LONGLEY, B.S., Nova Scotia; M.S., Minnesota, 1926. Economic aspects of local apple warehousing associations in Nova Scotia. 1931. *Minnesota*.
- ARTHUR REGINALD MARSDEN LOWER, B.A., Toronto, 1914; A.M., 1923; A.M., Harvard, 1926. Lumbering in eastern Canada. 1930. *Harvard*. Completed.
- CHARLES GROVER MCBRIDE, B.S., Pennsylvania State, 1911; M.S., Cornell, 1922. The development of market milk areas in northeastern Ohio. 1930. *Cornell*.
- THOMAS CARSON MCCORMICK, Ph.D., Chicago, 1929. Rural unrest: a sociological investigation of the rural movement in the United States. *Chicago*. Accepted.
- M. V. MCDUGAL, A.B., Rice Institute, 1926. Economic effects of the boll weevil infestation. 1931. *Johns Hopkins*.
- J. HOWARD MAUGHN, B.S., Utah Agricultural, 1916; M.A., 1924. Farm tenure in Utah. 1932. *Wisconsin*.
- H. J. MEREDITH, B.S., Wales, 1922; M.S., 1926. The economics of livestock marketing in Wales. 1931. *Minnesota*.
- ELMER HIRAM MERENESS, B.S., Cornell, 1926. Results of cost accounts for two years on Genesee county farms. 1931. *Cornell*.
- D. W. MICHENER, A.B., Pennsylvania; M.A., Haverford. Meat distribution. 1930. *Columbia*.

- PAUL G. MINNEMAN, Ph.D., Ohio State, 1929. Large land holdings and their operation in twelve Ohio counties. Accepted.
- HALDON MOHAT, B.S., Ohio University, 1926. Wool industry with special reference to the tariff. 1930. *Wisconsin*.
- ARTHUR NEWELL MOORE, A.B., Harvard, 1923; A.M., 1925. Agricultural credit problems in the South. 1931. *Harvard*.
- D. MOREHEAD, A.B., Hendrix, 1922; A.M., Columbia, 1923. Merchant credit to farmers in Louisiana. 1929. *Columbia*.
- N. P. MORTENSON, B.S., North Dakota Agricultural, 1921; M.S., 1923. An economic study of the Milwaukee milk market. 1931. *Minnesota*.
- KEITH ANDERSON HOPE MURRAY, Ph.D., Cornell, 1929. Some aspects of the supply and prices of meat in Great Britain. Accepted.
- PETER NELSON, B.S., Utah, 1920; M.S., 1924. The history of agriculture in Illinois, with special reference to types of farming. 1930. *Illinois*.
- PAULENA NICKELL, B.S., Minnesota, 1923; M.A., Columbia, 1927. A comparative study of rural and urban budgets in the United States. 1931. *Minnesota*.
- PAUL WILLIAM PAUSTIAN, A.B., Central Wesleyan, 1919; B.D., Drew Theological Seminary, 1923; A.M., Columbia, 1923. Canal irrigation in the Punjab. 1930. (Published in Columbia Studies in History, Economics and Public Law.)
- MA B. PEAKE, Ph.B., Ypsilanti, 1908; A.B., Michigan, 1914; A.M., 1915. Range cattle industry of Colorado. 1930. *Chicago*.
- CHESTER BALDWIN POND, A.B., Cornell, 1927; A.M., 1928. Conditioning state aid on full value real estate assessments. 1930. *Cornell*.
- JOSEPH R. RAMSER, Ph.D., Illinois, 1930. Some aspects of long term debt financing in agriculture during the years 1920-28, inclusive. Accepted.
- ROBERT C. ROSS, A.B., Monmouth, 1914; B.S., Illinois, 1923; M.S., 1925. An analysis of business expenses on Illinois farms, 1925 to 1928. 1931. *Illinois*.
- H. B. ROWE, B.S., Iowa, 1923. A study of market gardening in Massachusetts. 1931. *Minnesota*.
- G. A. SALLE, B.S., Illinois, 1925; M.S., Minnesota, 1928. The utilization of labor in agricultural production. 1931. *Minnesota*.
- BURTON D. SEELEY, B.S., Colorado Agricultural, 1926; M.S., 1928. United States agricultural policy. 1931. *Columbia*.
- BRUCE W. SILCOX, B.S., Toronto, 1923; M.A., Iowa State, 1925. An economic analysis of the foreign type cheese industry in Wisconsin. 1931. *Wisconsin*.
- MAURICE G. SMITH, Ph.D., Robert Brookings, 1929. The Stevenson rubber restriction scheme. Accepted.
- ROBERT F. SPILMAN, B.S., Oklahoma A. & M., 1926. The relation of mortgage indebtedness to farm land value. 1932. *Wisconsin*.
- G. W. SPRAGUE, B.S., Minnesota, 1926; M.S., 1928. Economics of decentralization of poultry killing and dressing industry. 1931. *Minnesota*.
- PHILIP HOLCOMB STEPHENS, Ph.D., Cornell, 1929. Successful management of New York dairy farms as affected by the proportion of the factors of production. Accepted.
- ELIAS A. STOKDYK, B.S., Wisconsin, 1920; M.S., Kansas State Agricultural, 1924. Some factors influencing the mid-season potato market. 1930. *Wisconsin*.
- HERMAN MARTINUS STOKER, B.S., Transvaal, 1927. Interrelations of supply, consumption, and prices of wool. 1930. *Cornell*.

- WHITNEY B. STOUT, B.S., Ohio State, 1922; M.S., 1928. The direct to packer marketing of hogs from Ohio. 1930. *Ohio State*.
- HOWARD JAMES STOVER, B.S., Cornell, 1926. Changes in the daily prices of hogs and the movement of hogs to the market. 1930. *Cornell*.
- GEORGE ROGERS TAYLOR, Ph.D., Chicago, 1929. Agrarian discontent in the Mississippi Valley preceding the War of 1812. Accepted.
- DOYAL EDGAR TIMMONS, B.S., Florida, 1926; M.S.A., 1927. An economic study of cucumber production in Florida. 1932. *Cornell*.
- CARL DUDLEY VARVEL, B.A., Ohio State, 1926; M.A., 1928. Agricultural adjustment to environment to the scioto onion lands of Ohio. 1932. *Ohio State*.
- L. VOLIN, A.B., Michigan, 1919; A.M., 1920. Aspects of Russian agriculture. 1930. *Michigan*.
- GORDON H. WARD, B.S., Massachusetts Agricultural, 1925; M.A., Minnesota, 1928. Analysis of price making forces in the New York egg market. 1930. *Minnesota*.
- STANLEY WHITSON WARREN, B.S., Cornell, 1927. A farm-management survey of northern Livingston County, New York, for the crop years 1908, 1918, and 1928. 1930. *Cornell*.
- FREDERICK PATTISON WEAVER, B.S., Pennsylvania State, 1914; M.S., Cornell, 1923. A survey of some public markets in up-state New York. 1930. *Cornell*.
- VIRGIL R. WERTZ, B.S., Wisconsin, 1919; M.S., 1920. Estimated income from Ohio agricultural industry. *Wisconsin*. Accepted.
- CARL WEHRWEIN, B.S., Wisconsin, 1915; M.A., 1928. The agricultural ladder in two regions of widely varying amounts of tenancy. 1930. *Wisconsin*.
- OTHELLO JOHN WHEATLEY, B.S., Utah, 1929. Effects of receipts on the price of wheat on the Minneapolis market. 1932. *Cornell*.
- ELDON WITTEBER, B.S., Nevada, 1922. The allocation of costs in wholesale marketing. 1930. *Cornell*.
- HAROLD NEWELL YOUNG, B.S., Cornell, 1917. Production and marketing of dry field beans in New York State. 1930. *Cornell*.

Manufacturing Industries

- ROBERT N. BURROWS, Ph.D., American University, 1930. Some problems of the cotton industry. Completed.
- MARIE CORRELL, B.S., Kansas State Agricultural, 1924; M.S., 1924. The paper industry in its technological, business and labor aspects. 1931. *Wisconsin*.
- ADDISON T. CUTLER, A.B., Amherst, 1924; A.M., North Carolina, 1926. The control of Colorado River power. 1930. *Robert Brookings*.
- OSCAR K. DIZMANG, B.S., Kansas State Agricultural, 1927. Legal and social aspects of meat packing. 1931. *Chicago*.
- MEREDITH B. GIVENS, B.A., Drake, 1920. Productivity changes in the iron and steel industry. 1929. *Wisconsin*. Completed.
- JACK KAHN, Ph.B., Chicago, 1927; A.M., 1928. The development and organization of the automobile rubber tire industry. 1930. *Chicago*.
- MARTIN L. LINDAHL, A.B., Carlton, 1924; A.M., Washington, 1927. International competition in the cotton textile industry. 1931. *Michigan*.
- HAROLD H. MCCARTY, Ph.D., Iowa, 1929. Recent changes in the location of manufacturing industries in Iowa. 1930. *Iowa*.

facturing industries in the United States, with special reference to Iowa. Accepted. (Published by the Bureau of Business Research of the University of Iowa.)

HOWARD BAGNALL MEEK, B.S., Boston University, 1917; M.A., Maine, 1920. The American hotel industry. 1931. *Yale*.

THOMAS D. O'KEEFE, B.F.S., Georgetown, 1926; M.A., American, 1927. The mechanization of the window glass industry. 1931. *American University*. Completed.

C. PAUTZ, A.B., Northwestern, 1916. The development of manufactures in the Great Lakes basin. 1930. *Columbia*.

DALTON J. PILCHER, A.B., Michigan, 1925; M.A., Southern California, 1929. American factories in Canada. 1931. *Virginia*.

EABLE RAUBER, Ph.D., Chicago, 1930. The development of the electric light and power industry in Chicago and vicinity. Accepted.

HOWARD L. SMITH, B.S., Columbia, 1921; M.A., New York, 1924. The water power problem of the United States. *Columbia*.

INSULA BATCHELDER STONE, Ph.D., Chicago, 1929. The baking industry, with special reference to the bread-baking industry in Chicago. Accepted.

HERMAN JOHN STRATTON, Ph.D., Chicago, 1929. Factors in the development of the American pottery industry, 1860-1929. Accepted.

SAMUEL SOMMERVILLE STRATTON, B.S., Dartmouth, 1920; A.M., Harvard, 1928. The economic development of the fine steels industry in the United States. 1930. *Harvard*. Completed.

HARRISON JOHN THORNTON, Ph.D., Chicago, 1929. The history of the Quaker Oats Company. Accepted.

H. J. WADLEIGH, B.S., London, 1928; A.M., Oxford, 1929. The location of industries. 1931. *Chicago*.

RUTH WOODRUFF, A.B., Bryn Mawr, 1919; A.M., 1920. A history of the hosiery industry in the United States. 1931. *Radcliffe*.

GERTRUDE BROWN WORKING, A.B., Mt. Holyoke, 1924; A.M., Radcliffe, 1926. The history of the American silk industry. 1931. *Radcliffe*.

Transportation and Communication

MURRAY REED BENEDICT, B.S., Wisconsin, 1916. The incidence of transportation charges on agricultural products: an analysis of the economic relationships involved when rates are changed. 1931. *Harvard*.

ARTHUR M. BORAK, Ph.D., Minnesota, 1929. The financial history of the Chicago, Milwaukee and St. Paul Railroad Company. Completed.

MERWYN G. BRIDENSTINE, Ph.D., Iowa, 1929. Some recent developments in railway consolidation. Accepted.

JOHN F. BRIDGEMAN, Ph.D., Pennsylvania, 1930. The railway labor act, its genesis, operation and evaluation. Accepted.

LESLIE A. BRYAN, B.S., M.S., Syracuse, 1924. The incidence of freight rates. 1930. *American University*. Completed.

LUCIAN H. CARTER, B.A., Emory and Henry College, 1920; M.A., Virginia, 1927. Significant developments in the relations between employer and employee on American railroads since the World War. 1930. *Virginia*.

ELTON CHOW, B.S., Pennsylvania, 1923; A.M., 1925. Railroad warehousing: operation and service. 1930. *Pennsylvania*.

- TI AN CHU, B.S., St. John's, 1925; M.B.A., Pennsylvania, 1927. Perishable freight services of American railroads. 1930. *Pennsylvania*.
- RICHARD HALL CRAWFORD, A.B., Kansas, 1929. Transit privileges in railroad transportation. 1932. *Chicago*.
- CALVIN CRUMBAKER, B.S., Whitman, 1911; M.A., Washington, 1921. The transcontinental rate structure as influenced by water carrier competition. 1930. *Wisconsin*.
- RALPH L. DEWEY, A.B., Ohio State, 1923; A.M., 1924. The long and short haul principle of federal rate regulation. 1929. *Michigan*. Completed.
- JULIAN SMITH DUNCAN, A.B., Mississippi, 1918; A.M., 1919; B.D., Emory, 1924. Relative merits from the standpoint of national welfare of public or private operation of railways in Brazil. 1931. *Columbia*.
- J. DURRENBERGER, A.B., Southwestern, 1922; A.M., Columbia, 1925. The history of American turnpikes. 1931. *Columbia*.
- DONALD MILTON ERE, S.B., Illinois, 1918; S.M., 1924. Weak railroads in the United States: their relation to regulatory policy. 1930. *Harvard*. Completed.
- MARVIN L. FAIR, B.A., Ohio University, 1923; M.A., Ohio State, 1926. The improvement of railroad freight terminal operation: a problem in American transportation. 1930. *Ohio State*. Completed.
- ROBERT WILLIS HARBESON, A.B., Western Reserve, 1925; A.M., Harvard, 1926. The Port of Boston and the port of differential controversy. 1931. *Harvard*.
- CHARLES LEE HODGE, A.B., St. Louis, 1925; A.M., Harvard, 1929. History of the Boston Albany railroad to 1869. 1932. *Harvard*.
- V. WEBSTER JOHNSON, B.E., N.I.S.T.C.; M.S., Wisconsin, 1925. Financial aspects of Wisconsin highways. 1931. *Wisconsin*.
- NORRIS G. KENNY, B.S., M.S., Nebraska, 1929. Federal land grants in aid of railroads. 1931. *American University*.
- JOHN HOWARD LAYHEW, A.B., McGill, 1924; A.M., 1926. The New York subway problem. 1930. *Columbia*.
- EMIL LEFFLER, A.B., Washington, 1919; M.A., Columbia, 1921. Railroad land grants. 1931. *Columbia*.
- WILLIAM R. LEONARD, A.B., Whitman, 1926; A.M., Tufts, 1928. Overhead cost aspects of railroad and motor competition. 1931. *Cornell*.
- CHEN HSIEN LI, A.B., Illinois, 1923; M.B.A., Pennsylvania, 1924. Coördination of motor and railroad transportation. 1930. *Pennsylvania*.
- PETER WEI LIN, A.M., Columbia, 1922. Railroad problems in Manchuria. 1930. *Columbia*.
- MALCOLM STUART MCCOMB, A.B., Columbia, 1928. The calculation of the savings to our export wheat farmers through the lowered transportation charges to Liverpool of grain from the St. Lawrence River canal projects. 1930. *Columbia*.
- WALTER J. MCCOMB, B.S., Pennsylvania, 1918; A.M., 1920. Speed and safety in train operation. 1930. *Pennsylvania*.
- CHARLES C. ROHLFING, B.S., Pennsylvania, 1923; A.M., 1925. National regulation of aviation in the United States. 1931. *Pennsylvania*.
- WILLIAM E. SCOTT, A.B., Reed, 1922. Chicago traction: 1907-1929. 1932. *Chicago*.
- ALBERT LLOYD SEEMAN, A.B., Morningside, 1921; M.B.A., Northwestern, 1924. The Port of Seattle: a study in urban geography. 1930. *University of Washington*.
- R. C. SMITH, B.S., Illinois, 1927; A.M., Maryland, 1928. Economic and legal aspects of broadcasting. 1930. *Chicago*.

EDWIN HAN
Columbia, 19
Columbia.

ANDREW ST
1930. Y

F. P. SUMM
Ohio Rail

PRE-LIN TA
Chicago r

DAVID JEFF
Angeles.

RUSSELL E
regulation

J. C. WHITE
and the c

YUN-YUAN
problems
1931. Pe

CHARLES C.
railways

CONRAD PA
in trans

ARCHER S.
port tra

D. J. COW
export a

ACHESON
trade of

WALTER B
Europe

LEAH LIP
cycles t

WILLIAM
1927. I

WALTER E
trade.

DUDLEY
automo

JOSIAH T
of pric

HAZEL V
busines

RALPH J
trade

- EDWIN HAROLD SPENGLER, B.S., College of the City of New York, 1925; A.M., Columbia, 1928. Land values in New York in relation to transit facilities. 1930. *Columbia*. (Published in *Columbia Studies in History, Economics and Public Law*.)
- ANDREW STEVENSON, JR., B.A., Wooster, 1926. Cost of labor on short line railroads. 1930. *Yale*.
- F. P. SUMMERS, A.B., West Virginia, 1923; A.M., Chicago, 1927. The Baltimore and Ohio Railroad: a study in the Civil War. 1930. *Chicago*.
- PEI-LIN TAN, B.C.S., Shanghai National Southeastern, 1926. The organization of the Chicago railway terminal. 1930. *Chicago*.
- DAVID JEFFERSON TEVIOTDALE, B.A., Alberta, 1920; M.A., 1920. The Port of Los Angeles. 1931. *Stanford*.
- RUSSELL EUGENE WESTMEYER, M.A., Iowa, 1928. Some minor aspects in railway regulation. 1930. *Iowa*.
- J. C. WHITE, A.B., Texas, 1922; A.M., 1924; LL.B., 1925. The Nickel Plate merger and the consolidation of railways. 1930. *Robert Brookings*.
- YUN-YUAN WONG, B.A., St. John's, 1927; M.B.A., Pennsylvania, 1928. Economic problems and results of electrification of steam railroads in the United States. 1931. *Pennsylvania*.
- CHARLES C. WRIGHT, B.A., Bridgewater, 1918; M.A., Columbia, 1923. Development of railways in Virginia. 1930. *Virginia*.
- CONRAD PAYLING WRIGHT, B.A., Oxford, 1920; M.A., 1925. The rise of the steamship in transatlantic service. 1931. *Harvard*.

Trade, Commerce, and Commercial Crises

- ARCHER S. CAMPBELL, B.A., Pennsylvania, 1924; M.S., Virginia, 1928. American export trade and exporting methods. 1930. *Virginia*.
- D. J. COWDEN, A.B., Grinnell, 1919; A.M., Chicago, 1922. A measure of United States export and import prices and quantities. 1931. *Columbia*.
- ACHESON JOHNSTON DUNCAN, B.S., Princeton, 1925; A.M., 1927. The international trade of South Africa. 1931. *Princeton*.
- WALTER BENNETT HARVEY, LL.B., Manitoba, 1918; M.A., 1928. Interrelations between European political and commercial diplomacy, 1870-1914. 1931. *Chicago*.
- LEAH LIPSKY, A.B., Hunter, 1922; A.M., Columbia, 1923. Relationship of agricultural cycles to business cycles. 1930. *Columbia*.
- WILLIAM WIRT LOCKWOOD, A.B., DePauw, 1927. The foreign trade of China, 1918-1927. 1931. *Harvard*.
- WALTER R. PEABODY, A.B., Amherst, 1918. An index of the physical volume of foreign trade. 1931. *New York*.
- DUDLEY M. PHELPS, A.B., Michigan, 1925; M.B.A., 1926. The foreign market for automobiles. 1930. *Michigan*.
- JOSIAH THOMPSON PHINNEY, A.B., Yale, 1923; A.M., Harvard, 1928. Secular stability of prices. 1931. *Harvard*.
- HAZEL VAN DYKE ROBERTS, A.B., West Virginia, 1925; A.M., 1925. The effect of business cycles upon the distribution of wealth. 1930. *Columbia*.
- RALPH J. SCANLAN, A.B., California, 1920; M.A., 1925. The potentialities of a foreign trade zone in the trade in the port of San Francisco. *California*.

- HUNTLEY MACDONALD SINCLAIR, A.M., Edinburgh, 1923; B.Com., Queen's, 1924. The commercial relations between the United States and Argentina. 1930. *Columbia*.
- HERBERT TOUT, B.A., Oxford, 1926. The relation of the state of trade to the amount of industrial unrest in Great Britain from 1888 to 1914. 1932. *Minnesota*.
- HARRY DEXTER WHITE, A.B., Stanford, 1924; A.M., 1925. The international balance of payments of France, 1880-1913. 1930. *Harvard*. Completed.
- THEODORE OTTE YNTEMA, Ph.D., Chicago, 1929. A mathematical reformulation of the general theory of international trade. Accepted.

Accounting, Business Methods, Investments, and the Exchanges

- JOHN R. ABERSOLD, A.B., Pennsylvania, 1922; LL.B., M.A., 1929. Commercial arbitration in Pennsylvania. 1931. *Pennsylvania*.
- L. W. ADAMS, A.B., North Carolina, 1925. Stock dividends. 1932. *Cornell*.
- CARL E. ALLEN, Ph.D., Illinois, 1930. The financing of American automobile manufacturing companies. Accepted.
- RALPH B. ALSPAUGH, B.A., Ohio State, 1923; M.A., 1924. Consumer attitudes toward special sales. 1930. *Ohio State*.
- G. LYLE BELSLEY, B.A., Pomona, 1926; M.A., 1927. The classification of federal personnel. 1930. *Robert Brookings*.
- THOMAS C. BLAISDELL, JR., A.B., Pennsylvania State, 1916; A.M., Columbia, 1922. The Federal Trade Commission. 1930. *Columbia*.
- WILLIAM M. BLAISDELL, A.B., Swarthmore, 1921. Stock exchange settlement methods and money markets. 1930. *Pennsylvania*.
- H. MORTON BODFISH, B.A., Ohio State, 1924; M.A., 1927. Social control of subdivision activities. 1931. *Ohio State*.
- CHELCE C. BOSLAND, B.S., Minnesota, 1923; A.M., 1924. A study in tire and rubber common stock prices. 1929. *Michigan*. Completed.
- ROBERT A. BRADY, A.B., Reed, 1923. Standardization of technological research and the returns to the ultimate consumer. 1930. *Columbia*.
- ROBERT P. BRECHT, B.S., Pennsylvania, 1922; A.M., 1925. Organization problems involved in the control of production—an analysis of the production organizations of certain manufacturing plants in the Philadelphia area. 1931. *Pennsylvania*.
- JOHN BENNETT CANNING, Ph.D., Chicago, 1929. The economics of accountancy: a critical analysis of accounting theory. Accepted.
- RALPH LUCHINGER CASSADY, B.S., California, 1924; M.S., 1927. An historical analysis of competitive practices in motion picture production, distribution, and exhibition. 1930. *California*.
- JOHN D. CLARK, A.B., Nebraska, 1905; LL.B., Columbia, 1907. The federal regulation of competition: a study in the interaction of business and legislation. 1931. *Johns Hopkins*.
- KENNETH GRANT CRAWFORD, B.A., Western University, 1924; M.A., 1926. The origins and development of independent and semi-independent boards and commissions in urban municipalities in Ontario, and the extent to which and the manner in which they have encroached upon the powers and the field of operations of municipal councils. 1931. *Toronto*.
- HARVEY C. DAINES, B.C.S., Albion, 1915; A.B., 1916. Measuring the performance of management. 1930. *Chicago*.

1930] A
KENNETH
chandisin
ELVIN F. I
of a sto
WILFORD
prices.
NATHANAI
in the v
pleted.
RUTH M.
advertis
CLARENCE
control
Steel C
E. E. FE
of the
house.
ERNEST I
measur
PAUL JO
Analys
Catholi
RAYMOND
confer
WINIFRE
1930.
E. H. C
retail
CHARLES
autom
HUGH C
invest
HERMAN
applic
Penna
HARRY
to yic
W. CAR
renta
HENRY
exche
D. J. I
Ohio
JOHN
mark
HUBER
econ

- KENNETH DAMERON, A.B., Beloit, 1922; A.M., California, 1925. Men's wear merchandising. 1930. *Columbia*. Completed. (Published by the Ronald Press.)
- ELVIN F. DONALDSON, B.A., Ohio State, 1925; M.A., 1927. Organization and operation of a stock brokerage concern. 1931. *Ohio State*.
- WILFORD J. EITEMAN, B.A., Ohio Wesleyan, 1926; M.A., 1928. The theory of stock prices. 1931. *Ohio State*.
- NATHANAEAL H. ENGLE, A.B., Washington, 1925; A.M., 1926. Competitive forces in the wholesale marketing of prepared food products. 1929. *Michigan*. Completed.
- RUTH M. ENGLE, B.B.A., Washington, 1922; A.M., Michigan, 1927. The incidence of advertising cost. 1930. *Michigan*.
- CLARENCE WEBSTER FACKLER, Ph.D., New York, 1929. An analysis of some factors controlling certain price movements of the principal securities of the United States Steel Corporation.
- E. E. FEREBEE, S.B., Virginia, 1924; S.M., 1925. Study of the warehousing function of the Chicago terminal market with special reference to the merchandise warehouse. 1931. *Chicago*.
- ERNEST MCKINLEY FISHER, A.B., Coe, 1914; A.M., Wisconsin, 1922. Quantitative measures of the real estate market. 1930. *Northwestern*. Completed.
- PAUL JOSEPH FITZPATRICK, A.B., Catholic, 1916; A.M., George Washington, 1929. Analysis ratios from financial statements of failed business concerns. 1932. *Catholic*.
- RAYMOND W. FOERY, B.S., Pennsylvania, 1922; A.M., Columbia, 1927. Trade practice conferences of the Federal Trade Commission. 1930. *Columbia*.
- WINIFRED L. FROST, B.A., Carleton, 1929. Standards programs for consumers' goods. 1930. *Robert Brookings*.
- E. H. GAULT, A.B., Ohio Wesleyan, 1917; M.B.A., Harvard, 1921. The control of retail units of chain stores. 1930. *Chicago*.
- CHARLES B. GORDY, B.S., Pennsylvania, 1917; A.M., 1921. Scientific management in the automobile industry. 1929. *Michigan*. Completed.
- HUGH C. GREGG, Ph.B., Chicago, 1921; A.M., 1923. The administration of college investments. 1932. *Chicago*.
- HERMAN L. GRUEHN, B.S., Pennsylvania, 1924. The economics of overhead costs as applied to rates, and the acquisition of new business, in public utilities. 1930. *Pennsylvania*.
- HARRY GEORGE GUTHMANN, Ph.D., Chicago, 1929. The relation of the maturity factor to yield differences among investment securities. Accepted.
- W. CARLTON HARRIS, Ph.D., Pennsylvania, 1930. The economic and legal aspects of rental clauses of long term leases. Accepted.
- HENRY W. HEWETSON, B.A., Toronto, 1924; M.A., British Columbia, 1925. Basis for exchange of securities in industrial mergers and consolidations. 1931. *Chicago*.
- D. J. HORNBERGER, B.A., Michigan; M.A., Ohio State, 1923. No par stock. 1931. *Ohio State*.
- JOHN TRUMAN HORNER, Ph.D., Robert Brookings, 1929. A study of the Detroit milk market. Accepted.
- HUBERT HUPPERTZ, M.A.; Ph.D., Cologne. The organization and principles of German economic and business education. 1931. *Columbia*.

- GEORGE R. HUSBAND, A.B., Michigan, 1923; A.M., 1927. Special problems found in automobile accounting. 1932. *Michigan*.
- DAVID B. JEREMIAH, Ph.D., Pennsylvania, 1930. Causes and prevention of corporate bond default. Accepted.
- JAMES A. JOHNSTON. Some cost problems of the business enterprise. 1929. *Iowa*. Accepted.
- PAUL S. KEISER, B.S., Pennsylvania, 1920; A.M., 1923. Retail hardware dealers' mark-ups in Philadelphia. 1930. *Pennsylvania*.
- PEARCE CLEMENT KELLEY, A.B., California, 1922; M.A., 1924. The organization trends in retail distribution, with special reference to the development of the "fundamentals of business organization" in retail concerns, and with special emphasis on the period from 1920 to 1930. 1930. *California*.
- CHESTER F. LAY, B.Ed., Illinois State Normal, 1917; A.M., Chicago, 1923. A job analysis of the work of the chief executive. 1930. *Chicago*.
- ANANIAS C. LITTLETON, A.B., Illinois, 1912; A.M., 1918. The historical foundation of modern accounting. 1931. *Illinois*.
- LAWRENCE CAMPBELL LOCKLEY, A.B., California, 1920; A.M., 1921. Economic effect of consumer advertising of fabricating parts and materials. 1930. *Harvard*.
- JEREMIAH LOCKWOOD, B.S., Pennsylvania, 1914; A.M., 1915. Accounting methods and procedures in relation to price cycles and trends. 1931. *Pennsylvania*.
- TAYLOR C. MILLER, B.S., Washington, 1922; M.S., 1923. Terms of sale as a marketing instrument. 1931. *Chicago*.
- MAY I. MORGAN, A.B., Washington University, 1925; A.M., 1926. Trends in market rates of capitalization of earnings per share. 1931. *Chicago*.
- PAUL C. OLSEN, Ph.D., Pennsylvania, 1930. A study of the sales of individual items in four types of retail drug stores. Accepted.
- CORLISS L. PARRY, B.A., Ohio State, 1924; M.A., 1929. Investment policies of life insurance companies. 1931. *Ohio State*.
- PHILIP C. PENDLETON, B.S., Pennsylvania, 1922; A.M., 1924. The effect of the lien and conveyance theories upon mortgage interest. 1931. *Pennsylvania*.
- DAVID S. PROSSER, B.A., Ohio State, 1923; M.A., 1928. Economic fundamentals of the movement of stock prices, 1921-1929. 1930. *Ohio State*.
- CARL D. REYER, B.A., Ohio State, 1923; M.A., 1925. Collective buying. 1930. *Ohio State*.
- J. E. RICKS, A.B., Utah, 1912; A.M., Chicago, 1920. Forms and methods of settlement in Utah. 1930. *Chicago*.
- CARL BURTON ROBBINS, A.B., Stanford, 1925; M.A., 1927. No par stock. 1930. *Stanford*. Accepted. (Published by Ronald Press.)
- NORMAN A. ROBERTSON, B.A., British Columbia, 1923; B.A., Oxon, 1925. History of trade regulation in Canada. 1930. *Robert Brookings*.
- BARKEV S. SANDERS, B.S., Bridgewater State Normal; A.M., Columbia, 1927. A statistical study of patents in the United States. 1930. *Columbia*.
- D. R. SCOTT, A.B., Missouri, 1910. The cultural setting and significance of accounts. 1930. *Harvard*. Completed.
- PETER L. SLAGSVOLD, B.S., Minnesota, 1926; M.A., 1927. Recent development of wholesaling and retailing in the northwest. 1930. *Minnesota*.
- CLIFFORD CURTIS TAYLOR, B.S., Colorado, 1917; M.S., Iowa State, 1923; A.M., Harvard,

1926. T
1930. HGRAY TRU
UnitedWILLIAM
and ext
PennsylFINDLEY
petroleuSIMON N
the marE. F. W
trol ofJOHN GR
ture.CORLISS L
intercoJESTON I
(PubliJOSEPH
corporJOHN W
premeNORMAN
and SLUNG C
minisJOHN I
and aMELVIN
chap
CompHELEN
ratesJAMES
pracROBERT
reguBISHOP
Eng
lemsLAURE
ana
sidiVALDI
in t

1926. The economic philosophy of the coöperative form of business organization. 1930. *Harvard*. Completed.
- GRAY TRUITT, A.B., DePauw, 1921; A.M., Columbia, 1925. The hotel industry in the United States. 1930. *Columbia*.
- WILLIAM EDWARD WARRINGTON, B.S., Pennsylvania, 1915; A.M., 1916. The nature and extent of losses to bondholders in corporate reorganizations—1919-1928. 1931. *Pennsylvania*.
- FINDLEY WEAVER, B.B.A., Texas, 1924; A.M., 1926. Financial organization of the petroleum industry in the United States. 1930. *Illinois*.
- SIMON NEWCOMB WHITNEY, B.A., Yale, 1924. The effects of industrial institutes on the marketing of goods. 1931. *Yale*.
- E. F. WITTE, B.S., Nebraska, 1925; A.M., 1926. Organization, management and control of chain drug stores. 1931. *Chicago*.
- JOHN GEORGE YENCHAR, A.B., Princeton, 1925; A.M., 1926. Merchandising in furniture. 1930. *Columbia*.

Capital and Capitalistic Organization

- CORLISS D. ANDERSON, Ph.D., Illinois, 1929. Economic effects and social control of intercorporate relationships in public utilities. Accepted.
- INSTON ROBERT BARNES, Ph.D., Yale, 1928. Public utility control in Massachusetts. (Published by Yale University Press.)
- JOSEPH G. BLANDI, B.S., Johns Hopkins, 1928. Economic aspects of the law of corporations in Maryland. 1931. *Johns Hopkins*.
- JOHN WILBUR BOATWRIGHT, B.A., William Jewell, 1927; M.A., American, 1929. Supreme court theory on industrial combinations. 1931. *Northwestern*.
- NORMAN S. BUCHANAN, A.B., Toronto, 1927; A.M., Cornell, 1929. The Electric Bond and Share group of public utilities. 1931. *Cornell*.
- LUNG CHUNG, B.S., M.S., Illinois, 1927. Federal water power act of 1920; its administration and consequences. 1930. *Illinois*.
- JOHN EDWARD DALTON, A.B., California, 1923; M.B.A., Harvard, 1925. The nature and administration of the California corporate securities act. 1930. *California*.
- MELVIN GARDNER DE CHAZEAU, A.B., Washington, 1924; A.M., Harvard, 1927. Some chapters in the regulation of the electric industry in Massachusetts. 1930. *Harvard*. Completed.
- HELEN CHERINGTON FARNSWORTH, B.S., in Education; M.A., Ohio State, 1924. The rates structure in the manufactured gas industry. *Stanford*.
- JAMES KENDALL HALL, A.B., Oregon, 1925; A.M., 1926. Telephone rates in theory and practice. 1930. *Stanford*. Accepted.
- ROBERT ST. CLAIR HOLMES, A.B., Swarthmore, 1923; A.M., Pennsylvania, 1926. The regulation of telephone companies in New York State. 1931. *Princeton*.
- BISHOP CARLETON HUNT, B.B.A., Boston University, 1920; A.M., Harvard, 1926. The English Joint Stock Company: its development, legal content and economic problems. 1930. *Harvard*. Completed.
- LAURENCE E. KLINE, B.S., Illinois, 1922. Associated gas and electric company—an analysis of the developments in its financial structure and in its method of subsidiary control. 1930. *Illinois*.
- VALDIE EPHRAIM LEVIN, A.B., Kansas, 1924; A.M., Harvard, 1927. Trade associations in the pulp and paper industry. 1930. *Harvard*.

- GLENN EVERETT McLAUGHLIN, A.B., Colorado College, 1925; S.M., Columbia, 1926; A.M., Harvard, 1928. International cartels. 1931. *Harvard*.
- PERRY MASON, A.B., Michigan, 1921; A.M., 1924. Depreciation and public utility regulation. 1932. *Michigan*.
- ARCHIBALD J. NICHOLS, A.B., New York, 1917; A.M., Lafayette, 1928. Partial monopoly and price leadership. 1930. *Columbia*.
- G. A. PUGH, A.B., Missouri, 1926; A.M., Cornell, 1929. The present economic significance of the Palmer-Packer agreement. 1931. *Cornell*.
- JOHN JOSEPH QUIGLEY, A.B., New York, 1925; A.M., Columbia, 1926. A study of the effectiveness of the Federal Trade Commission in administering the federal anti-trust policy. 1931. *New York*.
- ARCHIBALD D. SCHULTZ, A.B., Albion, 1921; A.M., Michigan, 1926. Public utility abandonments. 1930. *Michigan*.
- HAROLD G. SHIELDS, B.Ed., Illinois State Normal, 1924. Economic and business education on the junior college level. 1930. *Chicago*.
- FRANCIS A. STATEN, B.A., Washington, 1925; M.A., 1926. An appraisal of public utility regulation in Wisconsin. 1930. *Wisconsin*. Completed.
- JOHN DUNCAN SUMNER, B.S., M.B.A., Northwestern, 1926. The distribution of commodities by railway and airway: an analysis of the time factor. 1931. *Northwestern*.
- MYRON HENRY UMBREIT, A.B., Lawrence, 1918; M.A., Wisconsin, 1925. The changing attitude toward municipal ownership. 1931. *Northwestern*.
- DONALD HOLMES WALLACE, A.B., Harvard, 1924; A.M., 1928. Aluminum monopoly. 1931. *Harvard*.
- JAMES R. WALLIN, LL.B., Washington, 1916; B. Ed., 1921. Public ownership of electric utilities in Wisconsin. 1930. *Wisconsin*. Accepted.
- MERWIN H. WATERMAN, A.B., Michigan, 1925; M.B.A., 1926. Public utility holding companies. 1931. *Michigan*.
- MARCUS WHITMAN, B.A., Wisconsin, 1924; M.A., 1925. Public utility holding companies. 1930. *Wisconsin*.
- ROLAND WILSON, Ph.D., Chicago, 1930. The import of capital. Accepted.

Labor and Labor Organizations

- ALBERT ABRAHAMSON, A.B., Bowdoin, 1926. Labor relations in the automobile industry. 1930. *Columbia*.
- EVAN B. ALDERFER, B.S., Pennsylvania, 1924. Unemployment in the cigar manufacturing industry. 1931. *Pennsylvania*.
- EDWARD J. ALLEN, A.B., Colorado College, 1921; A.M., Columbia, 1923. Labor organization in the electric railway industry. 1930. *Columbia*.
- DONALD ELLIOT ANTHONY, A.B., Stanford, 1922; A.M., Cornell, 1923. Labor conditions in the canning industry in the Santa Clara Valley of the State of California. *Stanford*. Accepted.
- AMBER ARTHUR, A.B., University of Washington, 1920; A.M., Columbia, 1927. History of New York Women's Trade Union League. 1930. *Columbia*.
- ROBERT OSBORNE BAKER, B.A., Kansas, 1926; M.B.A., 1928. The theatrical stage employees union. 1931. *Kansas*.

SOLOMON B.
1929. Fac
RUTH WHIT
cliffe, 192
special re
ANNE BEZ
upholster
ALFRED BR
industry.
DOUGLAS V
1931. H
MARY SEV
1930. C
CARROLL L
bargaini
EDWIN M.
1921. T
JOHN EAT
Federat
JEAN DAV
southern
HARRY D
moveme
GLADYS D
in the s
MERCER C
moveme
LINCOLN
ployme
WALDO E
anthra
ANTON A
Brook
DOMENIC
legisla
ISIDOR C
moveme
ELSIE G
pleted
ALBERT
Fede
JAMES
organ
RUTH
of H
HENRY
five-

- SOLOMON BARKIN, B.S.S., College of the City of New York, 1928; A.M., Columbia, 1929. Factors in the American labor movement, 1785-1840. 1931. *Columbia*.
- RUTH WHITNEY BARRETT, A.B., Radcliffe, 1923; A.M., California, 1924; A.M., Radcliffe, 1925. Administration of labor laws protecting women and children with special reference to Massachusetts. 1931. *Radcliffe*.
- ANNE BEZANSON, Ph.D., Radcliffe, 1929. Earnings and working opportunity in the upholstery weavers trade.
- ALFRED BRIGGS, B.S., Illinois, 1923; M.A., Wisconsin, 1924. Labor in the window glass industry. 1929. *Wisconsin*. Accepted.
- DOUGLAS VINCENT BROWN, A.B., Harvard, 1923; A.M., 1925. Restriction of output. 1931. *Harvard*.
- MARY SEVENSON CALLCOTT, B.S., Columbia, 1928. Child Labor in New York State. 1930. *Columbia*.
- CARROLL L. CHRISTENSON, Ph.B., Chicago, 1924. Labor organization and collective bargaining in Chicago. 1930. *Chicago*.
- EDWIN M. COHEN, A.B., College of the City of New York, 1918; A.M., Columbia, 1921. The Independent Labour Party. 1930. *Columbia*.
- JOHN EARL CONN, A.B., Findlay, 1910; A.M., Columbia, 1911. New York State Federation of Labor. 1930. *Columbia*.
- JEAN DAVIS, B.A., Bryn Mawr, 1914; M.A., Wisconsin, 1920. Labor conditions in southern cotton mills. 1929. *Wisconsin*. Completed.
- HARRY DELSON, A.B., Columbia, 1921; A.M., 1925. Factions in the American labor movement today. 1930. *Columbia*.
- GLADYS DICKASON, A.B., Oklahoma, 1923; A.M., Columbia, 1924. Industrial relations in the southern textile industry. 1930. *Columbia*.
- MERCER GRIFFIN EVANS, Ph.D., Chicago, 1929. The history of the organized labor movement in the State of Georgia. Accepted.
- LINCOLN FAIRLEY, A.B., Harvard, 1923; A.M., 1924. Machinery as a cause of unemployment for older men. 1931. *Harvard*.
- WALDO E. FISHER, B.S., Columbia, 1916; A.M., Pennsylvania, 1923. Wage rates in the anthracite coal industry. 1930. *Pennsylvania*.
- ANTON A. FRIEDRICH, A.B., Beloit, 1917. Injunctions in labor disputes. 1930. *Robert Brookings*.
- DOMENICO GAGLIARDO, A.B., Kansas, 1922; A.M., Harvard, 1924. A history of labor legislation and the law of labor in Kansas. 1930. *Chicago*.
- ISIDOR GINZBURG, A.B., Columbia, 1918. The beginnings of the industrial unionist movement in the twentieth century British labour. 1930. *Columbia*.
- ELSIE GLÜCK, B.A., Wisconsin, 1920. John Mitchell, miner. 1929. *Wisconsin*. Completed.
- ALBERT T. HELBIG, Ph.D., Johns Hopkins, 1929. The departments of the American Federation of Labor. (Published by Johns Hopkins Press.)
- JAMES WILLIAM HOWELL, S.B., Boston University, 1926; A.M., Harvard, 1928. Labour organization in Massachusetts. 1931. *Harvard*.
- RUTH KELLOGG, B.S., Kansas State Agricultural, 1910; A.M., Chicago, 1927. A study of Illinois state free employment offices. 1931. *Chicago*.
- HENRY G. LEE, B.A., Wisconsin, 1914; M.A., 1924. The economic significance of the five-day week. *Wisconsin*.

- A. A. LINERODE, A.B., Wooster, 1916. Some aspects of the Chicago labor market. 1931. *Chicago*.
- DUANE MCCrackEN, B.A., Penn College, 1918; M.A., Wisconsin, 1920. Courts and injunctions in industrial disputes, with special reference to the effects of Injunctions in North Carolina and Elizabethton, Tennessee. 1930. *Minnesota*. Completed.
- J. MILTON McDANIEL, A.B., Johns Hopkins, 1924. Pressure on the public as a trade union weapon. 1930. *Johns Hopkins*. Accepted.
- ARCHIBALD MACDONALD McISAAC, A.B., Michigan, 1923; A.M., Princeton, 1924. The order of railroad telegraphers; a study in trade unionism and collective bargaining. 1930. *Princeton*.
- EMMETT B. McNATT, A.B., Missouri, 1925; A.M., Cornell, 1928. A study in employee representation on the Lehigh Valley Railroad. 1931. *Cornell*.
- W. H. McPHERSON, A.B., Harvard, 1923; A.M., Ohio State, 1924. German works councils as an agency for joint control in industries. 1930. *Chicago*.
- GEORGE MARSHALL, B.A., Columbia, 1926; M.A., 1927. The machinists' union: a study in institutional economics. 1930. *Robert Brookings*.
- JOHN PERRY MITCHELL, A.B., Dartmouth, 1921; M.A., Harvard, 1922. The methods of wage payment: a study of the principles and practices involved in the determination of specific payments to individual workmen. 1930. *Harvard*.
- BURTON R. MORLEY, Ph.D., Pennsylvania, 1930. Occupational experience of applicants for work in Philadelphia. Accepted.
- HOWARD BARTON MYERS, Ph.D., Chicago, 1929. The policing of labor disputes in Chicago: a case study. Accepted.
- FRANK J. NAUMANN, B.S., Pennsylvania, 1926. Unemployment in the sugar refining industry of the Philadelphia area. 1932. *Pennsylvania*.
- MILDRED NORTHRUP, B.A., Missouri, 1922; M.A., 1923. Policing labor disputes. 1931. *Wisconsin*.
- THOMAS LOWELL NORTON, B.S., Dartmouth, 1923; M.C.S., 1924. Labor problems in the shoe industry. 1930. *Columbia*.
- DONALD S. PARKE, A.B., Albion, 1925; M.B.A., Northwestern, 1926. An analysis of the collective agreement between the associated fur manufacturers and the furriers union. 1931. *Northwestern*.
- JAN GABRIEL PEROLD, B.A., Cape of Good Hope, 1899; B.D., Princeton, 1904; M.A., Toronto, 1926. Unemployment in Canada. 1931. *Toronto*.
- DAVID J. PRICE, B.S., Pennsylvania State, 1925; M.S., George Washington, 1927. Dust explosions in industrial plants with reference to the protection of life and property. 1931. *American*.
- CARL RAUSHENBUSCH, A.B., Amherst, 1922. Conciliation and arbitration in labor disputes in the United States. 1931. *New York*.
- PAUL A. RAUSHENBUSH, B.A., Amherst, 1920. Mitten men and management in Philadelphia. 1931. *Wisconsin*.
- LOUIS REED, A.B., Amherst, 1924; A.M., Columbia, 1925. The labor philosophy of Samuel Gompers. 1930. *Columbia*. (To be published in Columbia University Studies in History, Economics and Public Law.)
- STERLING F. RIGG, B.A., Monmouth, 1923; M.A., Northwestern, 1925. Certain union groups with special reference to organizability and sources of power wielded. 1930. *Chicago*.
- FREDERICK LYNNE RYAN, B.S., Tufts, 1916. Industrial relations in the San Francisco building trades. 1930. *California*.

JOHN W.
cepted.KARL M.
union inMERRILL T.
RussianLOUIS STA
Financi

JOHN P. T

ROY N.
the inteWILLIAM
economFRANK I
laws oARTHUR
1932.DALE Y
as StuAHMED
A.M.FRIEDA
policyHOMER
StanSTANIS
1931MARCE
pineWILLI
fundJOHN
econCHAR
timROBE
193

CORN

LYLE
caROM
RAVE
A

- JOHN W. SCOTT, Ph.D., Chicago, 1930. The policing of non-urban industry. Accepted.
- KARL M. SCOTT, A.B., Arkansas, 1925; M.S., Iowa State, 1926. The coal miners union in the United States after the World War. 1930. *Illinois*.
- MERRILL TEN BROECK SPALDING, A.B., Harvard, 1920; A.M., 1925. Militarisation of Russian labor under the Soviet government. 1931. *Harvard*.
- LOUIS STANLEY, B.S., College of the City of New York, 1920; A.M., Columbia, 1924. Financial history of American trade unions. 1930. *Columbia*.
- JOHN P. TROXELL, B.A., Washburn, 1920. The tobacco workers. 1931. *Wisconsin*.
- ROY N. VEATCH, Ph.D., Robert Brookings, 1929. The purposes and program of the international labor organization. Accepted.
- WILLIAM J. WALSH, A.M., Catholic, 1927. The united mine workers as a social and economic force in the anthracite industry. 1931. *Catholic*.
- FRANK DENSON WEAR, A.B., Trinity, 1923; A.M., Columbia, 1928. Minimum wage laws of the United States. 1929. *Columbia*.
- ARTHUR M. WEIMER, B.A., Beloit, 1929. The problem of the older worker in industry. 1932. *Chicago*.
- DALE YODER, Ph.D., Iowa, 1929. Labor attitudes in Iowa. Accepted. (Published as Study No. 5 by the Bureau of Business Research of the University of Iowa.)

Money, Prices, Credit, and Banking

- AHMED HAZIM ATIF, B.S., Robert, 1917; LL.B., Law School, Constantinople, 1922; A.M., Columbia, 1928. Money and banking in Turkey. 1929. *Columbia*.
- FRIEDA BAIRD, Ph.D., Robert Brookings, 1930. The development of federal reserve policy. Accepted.
- HOMER PAUL BALABANIS, Ph.B., Chicago, 1920; A.M., 1923. Bankers' acceptances. *Stanford*.
- STANISLAW BELZECKI, B.A., Tufts, 1927; M.A., Wisconsin, 1929. The Bank of Poland. 1931. *Wisconsin*.
- MARCELINO V. BERNARDO, Ph.D., Illinois, 1930. The money standard of the Philippines. Accepted.
- WILLIAM M. BLAISDELL, A.B., Swarthmore, 1921. Brokers' loans and the liquid capital fund. 1930. *Pennsylvania*.
- JOHN D. BLANCHARD, B.A., Cornell, 1920; M.A., Wisconsin, 1922. Control of our economic order. 1931. *Ohio State*.
- CHARLES W. BOYCE, A.B., Michigan, 1914; A.M., American, 1926. Prices of standing timber in the United States. 1930. *Columbia*.
- ROBERT W. BRADBURY, A.B., Albion, 1926; A.M., Michigan, 1927. The Bank of Mexico. 1931. *Michigan*.
- CORNELIUS DANIEL BREMER, B.S., Leyden, 1916. Monetary stability. 1930. *Columbia*.
- LYLE BRYANT, A.B., Beloit, 1928. The development of deposit currency. 1931. *Chicago*.
- ROBERT DE BLOIS CALKINS, JR., B.S., William and Mary, 1925; M.A., Stanford, 1929. Restrictions on bank credit in the United States. 1931. *Stanford*.
- AVERY L. CARLSON, Ph.D., Iowa, 1929. A monetary and banking history of Texas. Accepted.

- WILLIAM HARRISON CARTER, JR., A.B., Amherst, 1926. International banking, theory and practice. 1931. *Harvard*.
- GAINES T. CARTINHOOR, B.S., Illinois, 1924; M.B.A., Harvard, 1927. Banking concentration. 1931. *New York*.
- HUNG-CHUN CHANG, B.A., Yen Ching, 1925; M.A., Chicago, 1929. The prices, wages, and the cost of living in Peking, 1862-1900. 1930. *Chicago*.
- LAWRENCE CLARK, A.B., Drake, 1916; A.M., Ohio State, 1922. The Federal Reserve Bank of New York. 1930. *Columbia*.
- MARY CHANDLER COIT, A.B., Radcliffe, 1917; A.M., 1925. Velocity as an independent variable in the equation of exchange. 1931. *Radcliffe*.
- HARRY WILLIAM CORDELL. Installment credit in the retail furniture trade. 1930. *Ohio State*. Completed.
- JAMES A. CUNEO, A.B., Missouri, 1923. The banking system of Argentina. 1931. *Nebraska*.
- LAUCHLIN BERNARD CURRIE, B.Sc., London, 1925; A.M., Harvard, 1927. The composition of bank assets. 1931. *Harvard*.
- JAMES FRANCIS CUSICK, A.B., Amherst, 1921; A.M., Harvard, 1923. Bank amalgamation. *Harvard*.
- WILLIAM E. DUNKMAN, Com.E., Cincinnati, 1926; M.S., Columbia, 1928. Prices since 1919. 1931. *Columbia*.
- DAVID DYKSTRA, A.B., South Dakota, 1924; A.M., 1925. Bank policy in bringing deflation to a close. 1930. *Chicago*.
- HOWARD SYLVESTER ELLIS, A.B., Iowa, 1920; A.M., Michigan, 1922; A.M., Harvard, 1924. Monetary theory in Germany in recent years. 1930. *Harvard*. Completed.
- LINDLEY M. FRASER, B.A., Oxford, 1926. Discriminatory policies of the federal reserve. 1930. *Robert Brookings*.
- DELBERT RANSOM FRENCH, B.A., Reid College; A.M., Wisconsin, 1920. The significance of time deposits in the expansion of bank credit, 1922 to 1928. *Stanford*.
- EDWIN FRICKEY, A.B., Colorado, 1917; A.M., Harvard, 1926. A statistical study of bank clearings, 1875-1914. *Harvard*. Accepted.
- I. M. FRISCH, A.B., Minnesota, 1918; LL.B., 1919; A.M., Columbia, 1929. Credit control. 1931. *Columbia*.
- LEWIS A. FROMAN, A.B., Missouri, 1927. Interdistrict relationships of federal reserve banks. 1931. *Cornell*.
- FRED L. GARLOCK, A.B., Iowa, 1920; A.M., Columbia, 1921. Banking in Iowa, 1914-1916. 1930. *Columbia*.
- RICHARD H. GARLOCK, A.B., Iowa, 1925; A.M., Columbia, 1926. Iowa banking, 1916-1927. 1930. *Columbia*.
- ALBERT OTTO GREEF, A.B., Kansas, 1921; A.M., Harvard, 1922. The commercial paper house in the United States. 1931. *Harvard*.
- MARGARET GROBBEN, S.B., Chicago, 1915. Chicago's influence upon and contribution to our national banking reform. 1930. *Chicago*.
- ALLAN DE GRUCHY, B.A., British Columbia, 1926; M.A., McGill, 1929. Regulation of state banks in Virginia. 1931. *Virginia*.
- LLOYD A. HELMS, A.B., DePauw, 1925; A.M., Illinois, 1926. The contributions of Lord Overstone to the theory of currency and banking. 1930. *Illinois*.
- OSCAR EDWARD HESKIN, B.A., Luther College, 1922; M.A., Minnesota, 1927. The economic history of banking in North Dakota. 1931. *Minnesota*.

- DONALD C. HORTON, B.S., Ohio State, 1926; A.M., 1927. Bank regulation. 1931. *Michigan*.
- J. W. KEENER, B.A., Birmingham Southern College, 1928. Federal reserve policy since the World War. 1931. *Ohio State*.
- ALOIS KRAL, LL.D., Prague, 1927. Economic relations between central banks and industry. 1931. *Columbia*.
- WILFRID STANLEY LAKE, A.B., Hiram College, 1924. History of banking in Massachusetts. 1931. *Harvard*.
- SARA LANDAU, A.B., Louisville, 1920; A.M., 1921. An international comparison of the function and development of coöperative banks. 1930. *Chicago*.
- TAI LAI LEE, A.B., Syracuse, 1923; A.M., Columbia, 1924. Nationalization of banking. 1930. *Columbia*.
- RAY V. LEFFLER, A.B., Michigan, 1915; A.M., 1917. Federal reserve currency. 1931. *Michigan*.
- YAU SING LEONG, A.B., Hawaii, 1924; M.A., Teachers College, Columbia, 1925. A statistical analysis of money, credit, trade, and prices in the United States. 1930. *Columbia*.
- GEORGE FRANCIS LUTHRINGER, B.S., Princeton, 1926; A.M., 1928. Philippine monetary experience since 1913. 1931. *Princeton*.
- LAWRENCE PHILIP McGRATH, B.S. in Commerce, Illinois, 1921; M.A., Harvard, 1926. Chervonetz exchange. 1930. *Stanford*.
- MARGARET F. MILLIKEN, A.B., Vassar, 1922. Purchasing power parity theory of exchange rates. *Stanford*.
- THEODOSI A. MOGILNITSKY, University of Kiev. Monetary and banking developments in Russia since the Revolution. 1931. *Johns Hopkins*.
- HENRY PEEL, B.S., Florida, 1928; M.A., 1929. Bank credit and prices, 1913-1930. 1932. *Cornell*.
- RALPH PICKETT, A.B., Missouri Wesleyan, 1919; A.M., Chicago, 1924. The relation of the federal reserve system to banking in Iowa. 1930. *Chicago*.
- HOWARD SAMUEL PIQUET, B.Sc., New York, 1924; M.A., California, 1926. New Jersey building and loan associations. 1929. *Princeton*. Completed.
- AURELIU ION POPESCU, B.Sc., London, 1922. Roumanian currency and the central bank problem, 1914-1926. 1930. *Columbia*.
- CHARLES MCKINLEY RAMSEY, A.B., Duke, 1920; A.M., Cornell, 1925. British pound sterling, 1919-1925. 1931. *Harvard*.
- RALPH WEST ROBEY, A.B., Indiana, 1920; A.M., Columbia, 1923. Amendments to the Federal Reserve Act. 1930. *Columbia*.
- JOSEPH E. SHAFER, B.A., DePauw, 1925; M.A., Wisconsin, 1929. Purchasing power, credit, and paying power; their economic effect. 1931. *Wisconsin*.
- LEO STERMAN, Ph.B., Chicago, 1928. An analysis of the demand for bank credit for various uses. 1930. *Chicago*.
- TSUNG-YU SUN, Ph.B., Chicago, 1925; M.S., Columbia, 1925. Chinese monetary theories. 1931. *Columbia*.
- HERMAN P. THOMAS, B.A., Richmond, 1917; M.A., Virginia, 1925. Chain and group banking in the United States. 1931. *Virginia*.
- ROLLIN G. THOMAS, Ph.D., Chicago, 1930. The development of state banks in Chicago. Accepted.

- ARTHUR WINTHROP TOAN, A.B., Columbia, 1926. Call money rates. 1931. *Columbia*.
- MARION L. WADLEIGH, B.A., New Zealand, 1927. Currency banking controversy with special reference to international theory. 1931. *Chicago*.
- CAROLINE WHITNEY, A.B., Vassar, 1922. Stabilization of prices. 1930. *Columbia*.
- JAMES M. WHITSETT, B.A., Texas, 1926; M.A., Ohio State, 1928. Sounder banking through financial integration. 1932. *Ohio State*.
- ARTHUR H. WINAKOR, B.S., Illinois, 1926; M.S., 1928. Branch banking in the United States since 1914. 1931. *Illinois*.
- G. WALTER WOODWORTH, A.B., Kansas Wesleyan, 1924; A.M., Kansas, 1925. The development of banking relationships in Detroit. 1931. *Michigan*.
- WALLACE WRIGHT, A.B., Dartmouth, 1919; A.M., Stanford, 1924. Concentration of banking control in the United States. *Stanford*.

Public Finance, Taxation, and Tariff

- ARTHUR ZAPOLSKY ARNOLD, A.B., George Washington, 1926; M.S., Columbia, 1928. The system of taxation in the Soviet Union. 1931. *Columbia*.
- GEORGE H. AULL, B.S., Clemson College, 1919; M.S., Virginia, 1928. Incomes and taxation in South Carolina. 1931. *Wisconsin*.
- ANDREW BARR, JR., B.S., Illinois, 1923; M.S., 1924. Tax problems arising from corporate reorganization under the federal income and profits taxes. 1931. *Yale*.
- RUSSELL BAUGH, B.A., State Teachers' College, Springfield, Missouri, 1924; M.A., Wisconsin, 1926. The taxation of banks in the United States. 1931. *Wisconsin*.
- HOWARD BEROLZHEIMER, B.S., Northwestern, 1923; M.A., 1925. Taxation of intangibles under the general property tax. 1931. *Yale*.
- ALVIN B. BISCOE, A.B., Dickenson College, 1927; M.A., Duke, 1928. Fiscal policy of Virginia in state grants in aid. 1931. *Virginia*.
- J. ROY BLOUGH, B.A., Manchester, 1921; M.A., Wisconsin, 1922. The geographical distribution of Wisconsin tax bases and its significance in state fiscal policy. *Wisconsin*. Accepted.
- ALFRED GREETHER BUEHLER, B.A., Heidelberg, 1922. History and incidence of turnover taxes. 1930. *Yale*.
- HARCOURT L. CAVERLY, A.B., Michigan, 1919. The differential taxation of profits. 1929. *Michigan*. Completed.
- STANLEY F. CHAMBERLIN, B.S., Pennsylvania, 1922; A.M., 1925. Methods of financing city plans. 1931. *Pennsylvania*.
- VELL BURROWS CHAMBERLIN, B.S., Colgate, 1920; A.M., Michigan, 1926. The taxation of life insurance. 1930. *Chicago*.
- CHUNG C. CHOI, A.B., Columbia, 1928; A.M., 1929. History of taxation of Korea and China. 1930. *Columbia*.
- G. B. CLARKE, B.S., Minnesota, 1917; M.S., 1928. Study of Minnesota system of agricultural taxation, with special reference to tax burden. 1930. *Minnesota*.
- RALPH THEODORE COMPTON, Ph.D., Yale, 1929. Financing of declining communities in New York State. Accepted.
- MARTIN MARION DAUGHERTY, S.B., A. and M. College of Texas, 1916; S.M., 1925. The assessment and equalization of real estate in Delaware. 1931. *Harvard*.
- JOHN GRADY ELDRIDGE, A.B., North Carolina, 1917; A.M., 1923. History of taxation in Florida. *Columbia*.

- LIPPERT S. ELLIS, B.S., Wisconsin, 1923. The tariff in relation to sugar. 1930. *Wisconsin*.
- HAROLD R. ENSLOW, A.B., Kansas, 1926; A.M., Illinois, 1927. Import taxes on agricultural products. 1930. *Pennsylvania*.
- EDWIN M. FITCH, B.A., Yankton College, 1923; B.A., Oxford, 1926. The tariff and the lumber industry. 1930. *Wisconsin*.
- CAREY K. GANONG, B.A., Acadia, 1922; M.A., Toronto, 1924. The Canadian reaction to the American tariff policy. 1931. *Wisconsin*.
- JOHN MARSHALL GERSTING, B.S., Pennsylvania, 1924; A.M., 1925. Seven years of American flexible tariff experience. 1931. *Pennsylvania*.
- RICHARD ANTHONY GIRARD, B.S., New York, 1926. A study of state tax systems and tax resources. 1931. *New York*.
- EDWARD RUTHERFORD GRAY, B.A., Tusculum, 1916; B.A., Yale, 1917; M.A., Harvard, 1921. Administration of the federal public debt since 1917. 1931. *Yale*.
- ERNEST H. HAHNE, Ph.D., Chicago, 1930. Special assessment theory and practice with special reference to Chicago. Accepted.
- HENRY G. HENDRICKS, Ph.D., Illinois, 1930. The federal debt, 1919-1929. Accepted.
- OMER W. HERMANN, B.S., Nebraska, 1922. What the tariff on agricultural products does for the farmer. 1930. *Wisconsin*.
- JOHN G. HERNDON, A.B., Washington and Lee, 1910; A.M., 1912. International reciprocity in income taxation. 1931. *Pennsylvania*.
- FRANCIS WASHBURN HOPKINS, B.A., Yale, 1918. An historical sketch of local finance in Connecticut with special reference to forest industries, forest resources, and taxation of forests. 1930. *Yale*.
- CLIFFORD LESTER JAMES, B.A., Ohio State, 1925; M.A., 1926. Australian tariff policy, 1901-1926. 1930. *Harvard*. Completed.
- RALPH COUGHENOUR JONES, Ph.D., Yale, 1929. The consolidated return in American taxation. 1929. *Yale*. Accepted.
- WILBERT E. KARRENBROCK, A.B., Central Wesleyan, 1921; B.S., Illinois, 1923; M.S., 1924. The administration of municipal funds with special reference to Illinois cities. 1931. *Illinois*.
- LOUIS H. KIMMEL, A.B., Pennsylvania State, 1921; M.B.A., Pennsylvania, 1927. The taxation of financial institutions. 1931. *Pennsylvania*.
- GEORGE LEFFLER, B.A., Kansas, 1927. Wisconsin's industry and the Wisconsin tax policy. 1931. *Wisconsin*.
- JOY LUTHER LEONARD, Ph.D., Yale, 1929. Delinquent taxes. Accepted.
- JOHN ALEXANDER LEVANDIS, B.S., Delaware, 1921; A.M., Columbia, 1922. The finances of Greece and the international financial commission. 1930. *Columbia*.
- SIEN-TANG LI, B.S., National University, China, 1927; A.M., Columbia, 1929. Fiscal reform in China. 1930. *Columbia*.
- CHUNG WEI LU, A.B., Peking, 1925; A.M., Columbia, 1928. The fiscal policy of Wang an Shih. 1930. *Columbia*.
- HUNG-YU LU, A.B., National Fah-Chuin University, 1917; LL.B., Meiji University, Japan, 1919. Proposed reforms of Chinese taxation. 1930. *Columbia*.
- GEORGE KEHOE MCCABE, Ph.D., Yale, 1929. The criteria of a government's ability to meet the service on external bonds. Accepted.

- CHIEN TSENG MAI, A.B., Colorado, 1924; M.B.A., Harvard, 1926. The fiscal policies of Albert Gallatin. 1930. *Columbia*.
- C. R. MARTIN, A.B., Johns Hopkins, 1925. Treasury certificates of indebtedness. 1931. *Johns Hopkins*.
- JOSEPH G. MAYTON, Ph.D., Robert Brookings, 1929. Australia's financial problem. Accepted.
- WILLIAM MELCHER, B.A., Drury, 1911; M.A., Harvard, 1916. Relation of taxes to income and assessed values of land on the Uncompahgre reclamation project, Colorado. 1930. *Wisconsin*.
- HENRY R. MOORE, B.S., Ohio State, 1926; M.S., 1929. Some rural taxation problems in Ohio. 1932. *Ohio State*.
- FRANK A. NEFF, A.B., Lafayette, 1906; M.A., Harvard, 1910. Trends in municipal finance since 1900. 1932. *Nebraska*.
- RICHARD W. NELSON, Ph.D., Iowa, 1929. A critical study of certain aspects of taxation in Iowa. 1929. *Iowa*. Accepted.
- CHARLES M. NICHOLSON, B.S., Minnesota, 1925; M.S., Idaho, 1929. Taxation of financial corporations. 1931. *Cornell*.
- ARTHUR EDWARD NILSSON, B.Sc.E., Tufts, 1922; M.B.A., Harvard, 1924. Highway finance. 1931. *Yale*.
- LYLE OWEN, B.A., Southwestern Missouri Teachers' College, 1927; M.A., Wisconsin, 1928. The theory of business taxation with special reference to Wisconsin. 1930. *Wisconsin*.
- JAMES STUART PRENTICE, A.B., Queen's, 1920; M.A., 1927. Canadian federal finance since 1900. 1931. *Chicago*.
- L. OWENS REA, Ph.D., Johns Hopkins, 1928. Financial history of Baltimore since 1900. (Published by Johns Hopkins Press.)
- ROLAND R. RENNE, B.Sc., Rutgers, 1927; M.Sc., Wisconsin, 1928. Tariff and the dairy industry. 1930. *Wisconsin*.
- CHARLES H. SANDAGE, M.A., Iowa, 1927. Motor vehicle taxation. 1931. *Iowa*.
- FREDERICK H. SHELLEY, B.S., Missouri; M.A., George Washington, 1923. Flexible tariff provisions of 1922. 1931. *American*.
- THEODORE W. SHULTZ, B.S., South Dakota State College, 1927; M.S., Wisconsin, 1928. The tariff and its influence upon grain problems. 1930. *Wisconsin*.
- L. EDWIN SMART, B.A., Ohio State, 1916; M.A., 1923. Inheritance tax in Ohio. 1931. *Ohio State*.
- CORYDON PERRY SPRUILL, JR., A.B., North Carolina, 1920; B.Lit., Oxford, 1922. The public debt of Great Britain. 1932. *Harvard*.
- ROYAL STEWART STEINER, A.B., Beloit, 1915; A.M., Harvard, 1921. State control of local finance in Massachusetts and Ohio. 1931. *Harvard*.
- CLAUDE STIMSON, A.B., Montana, 1920; A.M., California, 1923. Tax exemption. 1930. *Chicago*.
- PETER THEODORE SWANISH, Ph.D., Chicago, 1930. The taxation of agricultural classes in Soviet Russia. Accepted.
- MABEL L. WALKER, A.B., Columbia, 1926. Municipal expenditures. 1930. *Johns Hopkins*. Accepted.
- KENNETH O. WARNER, A.B., University of Washington, 1926; M.A., 1927. The relationship between the Australian states and commonwealth, with special reference to finance. 1930. *University of Washington*.

- J. P. WATSON, Ph.D., Robert Brookings, 1929. Soundings in the general property tax system of Ohio. Accepted.
- BRADFORD W. WEST, A.B., Amherst, 1923; A.M., California, 1925. Major financial problems in the public care of the insane: a study in public finance. 1931. *Pennsylvania*.
- JANET LOUISE WESTON, A.B., Illinois, 1927; A.M., 1928. Statistical analysis of relation between reduction in tax rates and the amount of revenue received by the government from the income tax. *Stanford*.
- JOHN WOOSLEY, A.B., Guilford, 1912; A.B., Haverford, 1913; A.M., 1914. State taxation of banks. 1930. *Chicago*.
- LIANG YU, A.B., Oberlin, 1926; A.M., Columbia, 1928. The fiscal principles of Chase. 1930. *Columbia*.

Population and Migration

- LOUIS BASKA, O.S.B., A.M., St. John's, 1921. Economic conditions of the Slovak in the United States. 1931. *Catholic*.
- PHILLIP G. BECK, B.S., Ohio State, 1925; M.S., 1927. Rural population movements in Ohio. 1932. *Ohio State*.
- HOWARD P. BECKER, B.Sc., Northwestern, 1925; M.A., 1926. Migration and mobility in relation to social change. 1930. *Chicago*.
- ANNA BERCOWITZ, B.S., Johns Hopkins, 1926. Entry of negro into industry, 1914-1926. 1930. *Columbia*.
- ALFRED CAHEN, JR., A.B., Ohio State, 1927; M.A., Columbia, 1929. Causes of increasing divorce. 1931. *Columbia*.
- EDNA CERS, B.A., Radcliffe, 1921. U. S. immigration policy. 1930. *Robert Brookings*. (Published in the Survey of American Foreign Relations of the Council on Foreign Relations, Yale University Press.)
- TSU HUI CHU, A.B., Southeastern University, China, 1925; A.M., Wisconsin, 1926. A plan for securing information concerning Chinese demographic conditions by representative investigations. 1931. *Harvard*.
- WENDELL CLELAND, A.B., Westminster, 1909; A.M., Princeton, 1914. Population problems in Egypt. 1932. *Columbia*.
- FAY WALTER CLOWER, A.B., Kansas, 1922; A.M., Chicago, 1924. Population control in the United States. 1931. *Chicago*.
- MARY E. COCHRAN, A.B., Missouri Valley, 1913; A.M., Chicago, 1921. Governmental restriction of immigration in America, 1607-1830. 1930. *Chicago*.
- DEAN DUTCHER, A.B., Denver, 1914; A.M., 1915; B.D., Auburn, 1917. The negro in modern industrial society. *Columbia*.
- ABRAM L. HARRIS, JR., B.S., Virginia Union, 1921; M.A., Pittsburgh, 1924. The negro in the American labor movement. 1930. *Columbia*.
- LOUISE VENABLE KENNEDY, A.B., Reed College, 1918; A.M., Columbia, 1925. The negro peasant turns cityward: effect of recent negro migrations to northern cities. *Columbia*. (Published in Columbia Studies in History, Economics and Public Law.)
- LESTER EARL KLIMM, Ph.D., Pennsylvania, 1930. The relation between certain population changes and the physical environment in Hampden, Hampshire and Franklin Counties, Massachusetts. Accepted.

- FRANCIS E. LANE, O.M.I. The French in a New England mill town. 1932. *Catholic*.
- EDWARD ERWIN LEWIS, A.B., Columbia, 1924; A.M., 1925. Post-war migration of negroes. 1931. *Columbia*.
- LEWIS WILLIAM NEWTON, Ph.D., Chicago, 1929. The Americanization of French Louisiana. A study of the process of adjustment between the French and Anglo-American populations of Louisiana, 1803-1860. Accepted.
- ERNA RISCH, A.B., Cincinnati, 1926; A.M., 1927. Governmental and private aid to immigration in America, 1607-1830. 1930. *Chicago*.
- JAMES HATHAWAY ROBINSON, B.A., Fisk, 1911; B.A., Yale, 1912. Social history of the negroes in Cincinnati. 1931. *Yale*.
- CARL M. ROSENQUIST, B.S., Illinois, 1921; M.A., Texas, 1924. The Swedes of Texas. 1930. *Chicago*.
- JOSEPH J. SPENGLER, B.A., Ohio State, 1926; M.A., 1929. The comparative fecundity of native and foreign born women in the United States. 1930. *Ohio State*. Completed.
- WILLIAM HERBERT WITHERS, A.B., Columbia, 1926; A.M., 1928. The effect of recent American immigration on wages. 1930. *Columbia*.

Social Problems and Reforms

- RUDIGER BILDEN, A.B., Columbia, 1921. Slavery as a method of production in Brazil. 1931. *Columbia*.
- EUGENE PAUL BROWN, B.S., Southeastern State Teachers College, 1925; A.M., Oklahoma, 1928. Industrial training. 1930. *Chicago*.
- ALBERT F. CAMERON, B.A., Ohio State, 1929. Urban study of Chillicothe, Ohio. 1932. *Ohio State*.
- S. T. CHANG, A.B., George Washington, 1927; A.M., Columbia, 1929. Economic aspects of Sun Yat Senism. 1930. *Columbia*.
- DENZEL CECIL CLINE, A.B., University of Washington, 1925; A.M., 1926. Welfare finance in New Jersey. 1931. *Princeton*.
- FRANKLIN G. CONNOR, B.S., Pennsylvania, 1924. Silica Gel: a study of the economic consequences of technological advances. 1931. *Pennsylvania*.
- BURRUS DICKINSON, Ph.D., Illinois, 1930. The newspaper and labor. An inquiry into the nature and influence of labor news comment in the daily paper. Accepted.
- ABRAHAM EPSTEIN, B.S., Pittsburgh, 1917. A study of old age conditions. 1932. *Columbia*.
- HARRY M. HENIG, B.S., New York, 1926; M.A., Columbia, 1927. An economic interpretation of American education. 1931. *Columbia*.
- THOMAS W. HOLLAND, B.A., Michigan, 1923. An economic analysis of public purpose in American constitutional law. 1930. *Wisconsin*.
- ALLEN BROCKWAY LATHAM, A.B., McGill, 1926; A.M., 1927. Economic institutions under the direction of the Catholic Church in Canada. 1930. *Harvard*.
- LOIS MACDONALD, Ph.D., New York, 1929. Social and economic forces in southern mill villages. (Published by Alex L. Hillman, New York City.)
- J. ROLLA MAHONEY, A.B., Utah, 1918; A.M., Harvard, 1928. Education as a means of consciously directing and accelerating economic progress. 1930. *Harvard*. Completed.
- ALBERT H. MARVILL, B.S., Pennsylvania, 1922. Cost of home ownership in the Philadelphia suburbs. 1930. *Pennsylvania*.

- LOWRY NELSON, B.S., Utah Agricultural College, 1914; M.A., Wisconsin, 1924. The Mormon village: a study in social origins. 1929. *Wisconsin*. Completed.
- ALTON PEEBLES, A.B., British Columbia, 1920. A survey of the medical facilities of Shelby County, Indiana. 1930. *Columbia*.
- VICTOR ALEXANDER RAPPORT, Ph.B., Yale, 1926. The motion picture industry. A study in commercial recreation. 1930. *Yale*.
- VIRGINIA P. ROBINSON, A.B., Bryn Mawr, 1906; M.A., 1907. Recent trends in the philosophy underlying family case work. *Pennsylvania*. Accepted.
- LEO WILLIAM SIMMONS, B.A., Bethany College, 1923; B.D., 1925; M.A., Yale, 1927. The aged in primitive society. 1931. *Yale*.
- HAROLD T. SMITH, Ph.D., Iowa, 1929. The management of college endowments in the middle west. Accepted.
- H. LOUISE STITT, B.A., Ohio State, 1910; M.A., 1925. Women's ability to compete with men in the economic world. 1931. *Ohio State*.
- CLARK WARBURTON, A.B., Cornell, 1921; A.M., 1928. The economic aspects of prohibition. 1931. *Columbia*.
- W. WALLACE WEAVER, A.B., Kansas Agricultural, 1922; M.A., Iowa State, 1923. West Philadelphia: a study of natural social areas. 1930. *Pennsylvania*.
- GORDON COLEMAN WOODBURY, B.S., Northwestern, 1925; M.A., 1926. Some economic aspects of housing since 1920. 1931. *Northwestern*.

Insurance and Pensions

- GEORGE LAWRENCE AMRHEIN, B.S., Pennsylvania, 1918; A.M., 1925. Liberalization of the policy contract in life insurance. 1931. *Pennsylvania*.
- HENRY EDWARD EVERDING, B.S., Pennsylvania, 1924; A.M., 1930. American forestry insurance. 1932. *Pennsylvania*.
- A. C. GERNAND, Ph.B., Chicago, 1924; A.M., 1927. The evolution of workmen's compensation in the United States. 1930. *Chicago*.
- ROSAMOND W. GOLDBERG, A.B., Adelphi, 1925; A.M., Columbia, 1927. Health insurance and occupational diseases. *Columbia*.
- RICHARD A. GRAVES, M.A., Minnesota, 1912. The economic and social significance of group insurance in the United States. 1930. *Minnesota*.
- JOHN FRANCIS JEREMIAH, B.S., Pennsylvania, 1920; A.M., 1924. History and development of annuities. 1931. *Pennsylvania*.
- CLYDE M. KAHLE, Ph.D., Pennsylvania, 1930. Business interruption insurance. Accepted.
- GEORGE MATTHEWS MODLIN, A.B., Wake Forest, 1924; A.M., Princeton, 1925. Old age pensions in industry. 1931. *Princeton*.
- ELIZABETH MORRISSEY, A.B., Beloit, 1908; A.M., Johns Hopkins, 1922. Unemployment insurance in American trade unions. 1930. *Johns Hopkins*. Accepted.
- OSCAR S. NELSON, Ph.D., Pennsylvania, 1930. Problems of fire loss adjustments. Accepted.
- WILLIAM B. SHAFFER, A.B., Pennsylvania, 1927. Economic feasibility of old age insurance. 1932. *Pennsylvania*.
- CARL JOSEPH WHELAN, A.B., Princeton, 1922; A.M., 1924. The economics of group insurance. 1932. *Princeton*.

ELIZABETH WILSON, A.B., George Washington, 1917; A.M., Radcliffe, 1920. *Industrial insurance*. 1931. *Harvard*.

Pauperism, Charities, and Relief Measures

A. WAYNE McMILLEN, A.B., Iowa State, 1917. The volume of cost of family welfare work and child care in twenty-nine cities. 1930. *Chicago*.

Socialism and Co-operative Enterprises

SAMUEL BERNSTEIN, A.B., College of the City of New York, 1919; A.M., Columbia, 1920. The French independent socialist party. 1931. *Columbia*.

SHERMAN H. M. CHANG, Ph.D., Pennsylvania, 1930. The Marxian theory of the state. Accepted.

H. B. DORAU, B.A., Lawrence College, 1919; M.A., Wisconsin, 1920. The changing character and extent of municipal ownership in the electric light and power industry in the United States. *Wisconsin*. Accepted.

ROBERT P. HACKETT, B.S., Illinois, 1923; M.S., 1926. Some aspects of the financial management and administration of municipal owned water works. 1931. *Illinois*.

EDWARD ORTH MALOTT, Ph.D., Northwestern, 1929. A study of municipal ownership in Wisconsin. Accepted.

Statistics and Its Methods

J. PARKER BURSE, B.S., Pennsylvania, 1922; A.M., 1925. Self-forecasting of cyclical series in terms of derivative curves. 1931. *Pennsylvania*.

GARFIELD V. COX, Ph.D., Chicago, 1929. Business forecasting in the United States, 1918-1928. Accepted.

AARON DIRECTOR, Ph.B., Yale, 1924. Statistical studies in marginal productivity with special reference to Australia. 1930. *Chicago*.

ROY MONROE GREEN, B.S., Missouri, 1914; A.M., Kansas State Agricultural, 1922. Seasonal fluctuations in wheat prices in relation to the wheat price cycle. 1931. *Chicago*.

IRVIN HULL, B.S., Utah Agricultural, 1926. Measuring the purchasing powers of consumers. 1930. *Chicago*.

RICHARD L. KOZELKA, B.A., Beloit, 1921; M.A., Chicago, 1926. A business index for the northwest. 1930. *Minnesota*.

EDWIN KUNST, Ph.B., Chicago, 1925. An analysis of work curves. 1930. *Chicago*.

E. W. PETTEE, B.S., Nebraska, 1922; M.A., Lafayette, 1926. Commodity price forecasting since the World War. 1930. *Chicago*.

RALPH WILLIAM SOUTER, A.M., New Zealand, 1922. Relation between changes in volume and distribution of savings and industrial fluctuations. 1930. *Columbia*.

DWIGHT B. YNTEMA, A. B., Hope, 1926; A.M., Michigan, 1927. Measurement of inequality of distribution. 1931. *Michigan*.

Royal Economic Society

Annual Membership	-	One Guinea
Life Membership	-	Two Guineas

The Membership Subscription now covers the receipt of the following:
THE ECONOMIC JOURNAL (Quarterly).
Economic History, about 150 pp. (Annual).
Statistical Bulletin on Economic Conditions in Great Britain (Quarterly).
Report and Statistical Bulletin on Current Economic Conditions in Europe (Annual).
Special Memoranda (One or Two annually).

Publications of the Society

	PRICES					
	MEMBERS*			NON-MEMBERS		
	£	s.	d.	£	s.	d.
(1) F. Y. EDGEWORTH: <i>Papers Relating to Political Economy</i> (3 Vols.).....	2	2	0	2	10	0
(2) G. F. KNAPP: <i>State Theory of Money</i> ..		6	0		10	6
(3) ALFRED MARSHALL: <i>Official Papers</i>		5	0		10	6
(4) T. R. MALTHUS: <i>First Essay on Population</i> (1798).....		5	0		10	6
(5) GEORGE UNWIN: <i>Studies in Economic History</i>		7	6		15	0
(6) MEMORIALS OF ALFRED MARSHALL.....		6	0		10	6
(7) LIST: <i>Schriften, Reden, Briefe</i> (8 Vols.)						
linen	5	0	0	7	4	0
half leather	5	10	0	8	8	0

* Members of the Royal Economic Society or of the American Economic Association.

Applications for Membership should be addressed to:

The Secretary, Royal Economic Society,
 9, Adelphi Terrace, London, W.C.2